

AGENCY FOR INTERNATIONAL DEVELOPMENT WASHINGTON, D. C. 20523 <b>BIBLIOGRAPHIC INPUT SHEET</b>	<b>FOR AID USE ONLY</b>
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1. SUBJECT CLASSIFICATION	A. PRIMARY Education
	B. SECONDARY Educational Technology

2. TITLE AND SUBTITLE  
 The use of television in the El Salvador program of educational reform, differences between this project and some others

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4. DOCUMENT DATE 1969	5. NUMBER OF PAGES 24p.	6. ARC NUMBER ARC
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7. REFERENCE ORGANIZATION NAME AND ADDRESS  
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 1414 22nd Street, NW, Washington, D. C. 20037

8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)  
 (In Project rpt. ser. no. 3)

9. ABSTRACT  
 A discussion of how El Salvador's Instructional Television (ITV) project differs from those of other countries. Three other projects are compared, those of Colombia, American Samoa, and Niger, all of which began in 1964, nearly five years before El Salvador's. Points of similarity and difference were: 1) relative amounts of responsibility taken by the host government and assisting governments or agencies; 2) curriculum revision; 3) teacher training; 4) strategy and timing of introducing ITV; 5) television schedules (El Salvador's is given); 6) the teaching itself; 7) the organization (detailed diagrams for all four countries are given), and 8) research on and evaluation of the projects completed and contemplated.

10. CONTROL NUMBER PN-AAB-396	11. PRICE OF DOCUMENT
12. DESCRIPTORS	13. PROJECT NUMBER
	14. CONTRACT NUMBER CSD-2175 GTF
	15. TYPE OF DOCUMENT

THE USE OF TELEVISION IN THE EL SALVADOR PROGRAM OF  
EDUCATIONAL REFORM:

DIFFERENCES BETWEEN THIS PROJECT AND SOME OTHERS

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We have many times been asked how El Salvador's use of instructional television differs from uses other countries are making of television in their educational systems. This report is intended to be a brief answer to that question.

Three other major projects. Perhaps the best way to point out the different characteristics of the El Salvador project is to compare it with three other major instructional television projects in developing countries. Each of these projects has frequently been cited, visited, and admired as a significant use of television for educational purposes. To be sure, they have attracted notice for somewhat different reasons. The Colombia ITV project is remarkable for the number of students it serves (just under 400,000 at last report) and the low unit cost (about 5 cents per hour per student) made possible by the size of the audience. The American Samoa ITV project is remarkable for its extensive technical facilities (six open-circuit VHF channels, two transmitter towers on a mountain, four studios, 10 videotape recorders) and because it provides the core of the curriculum for an entire 12-grade school system. The Niger project has been much admired for its programs.

All three of these other major projects came into operation in 1964 -- Colombia in March, Samoa in October, Niger in November. They are thus nearly five years older than the El Salvador project, which began to broadcast school television only in February, 1969.

In each case, television came into use in response to an urgently felt educational need. Colombia felt the need to upgrade the average level of teaching available in its schools, especially in the smaller and more remote schools of the country, and to introduce some new subject matter and methods. In Samoa, television was called upon to help lift a traditional, rote-learning school system up to modern standards and modern educational practices -- and to do this not in the one or two centuries it might ordinarily require, but in one or two decades. In Niger, television came into use in an effort to meet a desperate shortage of trained teachers; the strategy was to share some of the ablest teachers widely by television, and to use the less-well-trained teachers to conduct classroom activities built around the television. In El Salvador instructional television was introduced as one element in a very broad plan for educational reform. A new curriculum was introduced and a great deal of teacher in-service training was provided. Television was intended to help guide the schools into the new curriculum, to make excellent teaching more generally available, and to provide some of the demonstrations and the audio-visual teaching aids not readily available in the majority of classrooms.

All four of these major ITV projects shared another common characteristic: They had a considerable amount of assistance, in the form of grants, loans, or expert personnel from outside the country. In Colombia grants from A.I.D. and the Ford Foundation helped purchase studio equipment and classroom receivers, and large

contingents of Peace Corps Volunteers carried much of the early responsibility for production and efficient utilization of the programs in the schools. American Samoa being an unincorporated territory of the United States, the Department of the Interior provided the large sums necessary for equipment and operation. The French Ministry of Cooperation provided the production and technical teams, many of the facilities, and some of the operating costs of the project in Niger. In El Salvador, A.I.D. has supplied some of the equipment and provided advisers for curriculum revision, production, engineering, materials preparation, teacher training, and utilization, as well as a research and evaluation team. Loans for expanding the system and building schools are now being negotiated.

Thus El Salvador, like the others, went to instructional television as a potential answer to a deeply felt national educational need, and has had substantial assistance from outside in bringing television into use. How, then, is El Salvador's pattern unlike the others?

Whose project? One of the sharpest differences is in the relative amounts of responsibility carried by the host government and the assisting government or agencies. In Samoa, for example, all the television teachers beyond the fourth grade, the entire team of producers and directors, the senior technical personnel, and most of the senior educational administrators have come from the mainland of the United States. The classroom teachers, of course, are Samoans,

and an increasing number of Samoan principals have been appointed to the schools. But still the chief responsibilities for the Samoan instructional television system are borne by non-Samoans.

The situation is somewhat similar in Niger. The classroom teachers and most of the studio teachers are from Niger, but the producer and directors and writers are all sent from France, and both content and method are in their hands. Indeed, while the instructional television in American Samoa is completely integrated into the educational system (there is actually no individual bearing the title of Director of Broadcasting, and ITV is a section of the Department of Education like Elementary, Secondary, and Teacher Training), in Niger the ITV project is regarded as an experiment quite apart from the main stream of education in that country. It has never been permitted to grow beyond 20 classrooms, and the Ministry of Education shows no apparent interest in taking over its budget or expanding it, despite a great deal of encouraging evidence from the experimental classrooms.

In Colombia both classroom and studio teachers have from the beginning of the project been Colombians, and after the first few years Colombians took over all the production and direction of programs. Peace Corps volunteers handled most of the utilization until the Corps left Colombia. Responsibility for the instructional television rests with a National Institute of Radio and Television, reporting both to the Minister of Education and the Minister of Information.

In El Salvador, ITV is integrated into the Ministry of Education much as it is in Samoa. The Director of Instructional Television reports to the Minister. More than any of the others -- most like Colombia and wholly unlike American Samoa and Niger -- it is a completely Salvadoran operation. All the administrative positions are held by Salvadorans. The classroom teachers, the studio teachers, the subject-matter specialists on the production teams, the supervisors who visit the schools to help with the utilization of television, the technicians in transmitters and studios -- all these are Salvadorans. The American advisers on curriculum, production, technical operation, utilization, and teacher training are just that -- advisers. Thus there is no real basis for feeling that an outside country is imposing an educational system on El Salvador, or experimenting on Salvadorans, as has sometimes been charged of some other educational projects in the developing regions. It is definitely El Salvador's project, no one else's.

Curriculum revision. A review and revision of the curriculum typically accompanies the introduction of television in a developing country. Often the wish to introduce a new curriculum has been the chief reason for using television; and in any case the cost and effort needed to get television on the air usually persuades educators that they should not make such an investment simply to teach the old material in the old way.

Of all the four projects, El Salvador made the greatest effort

at curricular revision. In Samoa, the curricular planning was done mostly in a summer workshop just before the broadcasts started. In Colombia the new curriculum was not introduced until the fifth semester of television. In Niger, the content of the new televised courses was researched and planned very carefully, but it was a curriculum for the experimental project rather than for the entire educational system. In El Salvador, however, a curricular revision team made up of Salvadorans with one Unesco and several American advisers, had been working on a new curriculum from July to February before the first ITV lessons were broadcast. The curriculum revision continues, and an integrated curricular plan is emerging for the entire educational system. The course outlines and television lesson-plans grow directly out of this new curriculum, which includes "new math" and other modern features, all related to the national goals and setting of El Salvador.

Teacher training. The preparation of classroom teachers to teach the new curriculum and make effective use of television in the classroom is another feature common to most well-planned ITV projects. Most commonly it takes the form of in-service training, and the classroom teachers are brought into workshops, given advice by supervisors or inspectors, or provided with broadcasts intended to help them teach the forthcoming subject matter.

All the projects described in this report conducted some in-service training. In American Samoa, there were regular broadcasts

for teachers after the school day was over, and the school principals functioned partly as teacher-training supervisors, visiting the classes, advising the classroom teachers on how to build a better context for the television, and meeting with them in groups to discuss the requirements and problems of good teaching. In Colombia, as has been indicated, the Peace Corps Volunteers established an extensive system of "utilization officers", whose assignment was to visit the schools, help the teachers to make better use of television, and report back to the studio on problems encountered with the lessons. Some classes were broadcast especially for teachers; for example, a course in the new math was put on television before the subject had to be taught in the classroom. Niger had brief workshop courses, and a certain amount of continuing observation and advice, for classroom teachers.

Like Colombia, El Salvador has a group of utilization officers (called "supervisors" in El Salvador) -- indeed, such a high ratio of supervisors to schools that it is possible for a supervisor to visit each classroom at least once a week. But the distinguishing feature of the El Salvador project is that a great deal of additional training is given each classroom teacher before he is assigned to a television classroom. In the first year of the program, this was an intensive three-months course at the Alberto Naferrer Normal School at San Andrés. It began in November and ended just before the new school year began in February. At the present time, 250 teachers are in a full-year course at San Andrés preparatory to being assigned to

television classrooms during the second year of the project. Most of these are experienced teachers, who have been withdrawn from the classroom for a year to study the substance of the new curriculum, the methods of teaching with television, and the utilization of TV and audio-visual aids. So far as is known, no other ITV project has ever put so much emphasis on retraining its classroom teachers in advance of their new assignments.

Strategy and timing. Niger and American Samoa represent extremes in the strategy of introducing instructional television. In Niger, a full year's classes for grade one were prepared, recorded, and tested by means of closed-circuit television on two experimental classrooms. When these lessons were considered satisfactory, they were offered during the following school year to 20 grade one classrooms. Meanwhile, the second-grade programs were being prepared and tested on the same two experimental classrooms. The intention was to expand from 20 classrooms to 300 to 500 in succeeding years, but the experiment was never taken up by the Ministry of Education, and consequently the expansion stopped at 20. The pattern, though, was clear: a careful and patient schedule of introduction, one grade at a time, with each group of lessons being tested on a few classes before being offered to more.

American Samoa, on the other hand, began with the entire elementary school the first year, and added the entire secondary curriculum the following year. In less than a year it was producing 188 live programs a week. This is a rate of production equalled

hardly anywhere, and it placed a severe burden on the studio teachers and producers. Within two years all except a few hundred of the entire school population on the islands was being reached by television.

Colombia was between these two in its rate of introducing ITV. It began with two subjects a week for each of the first five grades -- a total of ten courses -- and has increased this program offering very slowly. In the first year the broadcast went mostly to schools in the neighborhood of Bogotá, but the coverage area increased as fast as receivers could be provided and the national network could deliver the signal. Now, after five years, the school broadcasts are reaching nearly one third of the elementary school students in the country.

El Salvador, like Niger, has begun one grade at a time, and in the first year has tried out its programs in only 32 classrooms. Unlike Niger, however, it does not plan to stop with a few schools, but to cover all public classrooms in the country as soon as it can construct the necessary broadcasting facilities, revise the curricula, prepare the broadcasts, and retrain the teachers. El Salvador being relatively small in area, nation-wide coverage will come more easily than in Colombia or Niger. The school broadcasts have begun in the seventh grade (the first year of the "Plan Basico"), will reach about 75 per cent of public school seventh grades next year, add a pilot group in the eighth grade, and then move forward about one grade each year until the entire Plan Basico is covered. At that point it will probably go down into the primary and up into the bachillerato at the same time. Thus it is intended to expand at a measured pace, like

Niger, but ultimately will serve every public school, as does Samoa.

Why did El Salvador begin with the seventh grade, whereas Niger began with the first, Colombia with the first five, and American Samoa with the first eight? Each had its own reason. With Samoa, time was of the essence; the architects of that program wanted to get as much as possible under way in the first year. With Colombia, a major problem at the time seemed to be upgrading the elementary school; for several years now plans have been under way to extend television to the secondary. El Salvador studied its school problems, decided that the Plan Basico classes (grades seven through nine) were most in need of attention. They offered too few places for primary school graduates, and some of the teaching in them was of poor quality. Thus they were a bottleneck in the country's effort to train middle-level people in order to expand the industrial sector.

It is worth noting that El Salvador is the only one of these projects that seems presently destined to become a truly national system, serving all the public school classrooms in the country. Samoa, of course, serves all its public schools, but it is a territory, rather than a nation. The development of El Salvador's national system will be interesting to observe, because it will require solutions to questions that have not been faced on such a national scale elsewhere -- for example, the problem of meeting with a central program the differing needs of urban and rural schools, and of schools where the quality of instruction has varied widely; the effect of such a large Plan Basico development on the requirements for secondary and higher

education; and the contribution of a national system of school television to national programs like agriculture improvement, health education, and community development.

The television schedules. El Salvador broadcasts 19 instructional periods of 20 minutes each, per week. These include four periods each of Mathematics, Science, Social Studies, and Spanish, and three periods of English. The total air time is 6 hours and 20 minutes per week. This will be approximately doubled next year. Comparable schedules for Colombia, Samoa, and Niger will be found in The New Media in Action: Case Studies for Planners, Volumes 1 and 2 (Paris: Unesco, 1967).

Here is the El Salvador ITV schedule, and, on the following page, the full class schedule for the seventh grade. It will be seen that television fills only about 22 per cent of the class time throughout the week.

Plan Basico ITV Schedule - February-November 1969

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:10-8:30		Mathematics	Mathematics	Mathematics	Mathematics
9:10-9:30	Science	Science	English	Science	Science
10:10-10:30	Social Studies	Social Studies	Social Studies	Social Studies	English
11:10-11:30	English	Spanish	Spanish	Spanish	Spanish

Plan Basico Weekly Schedule - February-November 1969

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
7:00-7:50 <u>a.m.</u>	Orientation	Spanish (Practice)	Orientation	Spanish (Practice)	Social Studies (Activities)
8:00-8:50	Spanish (Laboratory)	Mathematics	Mathematics	Mathematics	Mathematics
9:00-9:50	Science	Science	English	Science	Science
10:00-10:50	Social Studies	Social Studies	Social Studies	Social Studies	English
11:00-11:50	English	Spanish	Spanish	Spanish	Spanish
2:00-2:50 <u>p.m.</u>	Science (Practice)	Social Studies (Practice)	Mathematics (Practice)	Social Studies (Practice)	Mathematics (Practice)
3:00-3:50	English (Practice)	Physical Education	English (Practice)	Science (Practice)	Physical Education

The teaching. In the 19 class periods a week when television is to be used, the classroom teacher typically uses the first ten minutes of the period to set the stage for the televised lesson -- by review or explanation or questions intended to motivate interest. After the 20-minute television presentation, the classroom teacher picks up the thread of the lesson and tries to teach the concepts by means of more active participation by the class. This "reinforcement" or "follow-up" period lasts another 20 minutes.

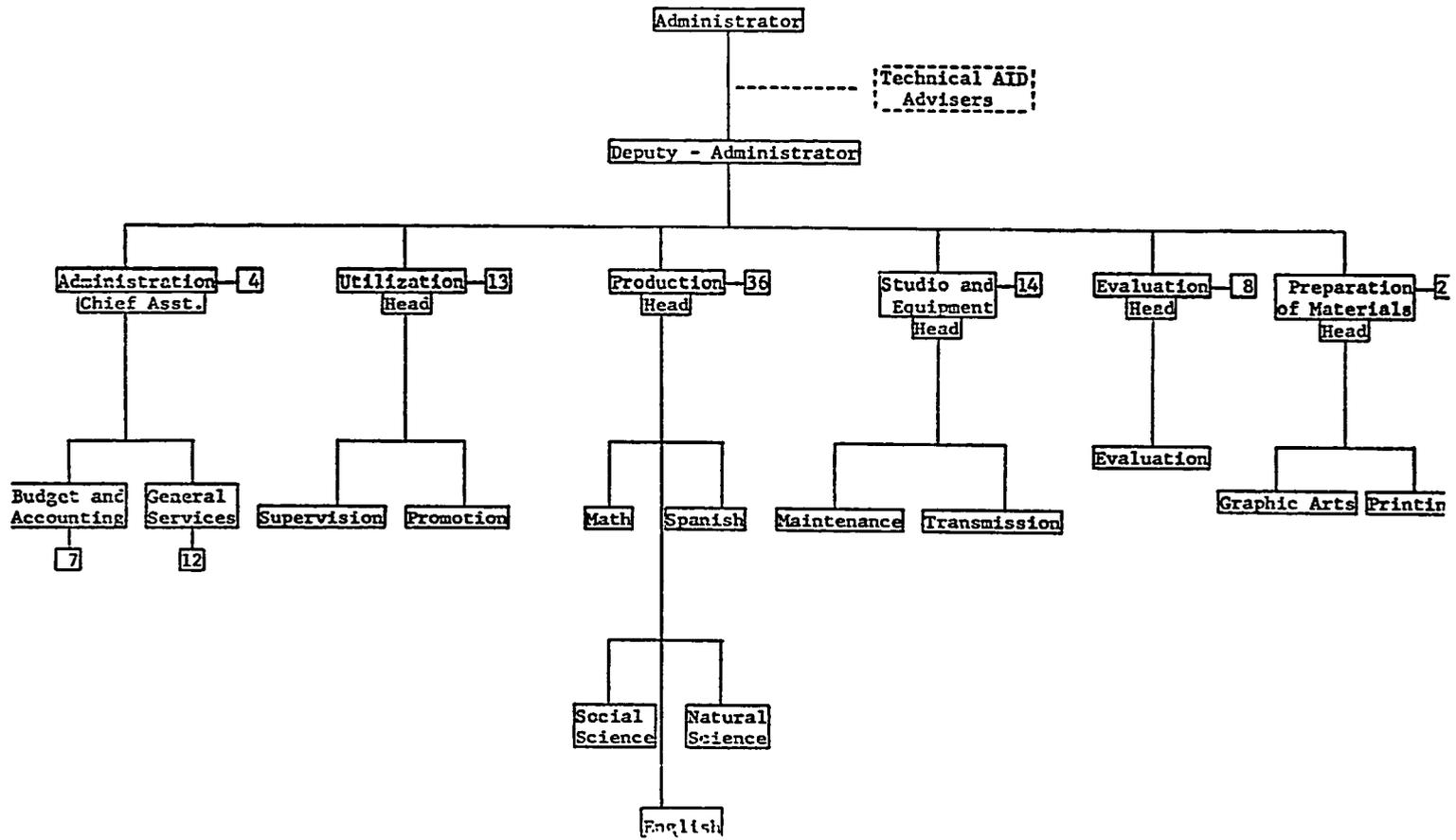
Like the other projects described in this report, instructional television in El Salvador is built around the concept of a teaching team, made up of the studio teacher, the classroom teacher, and the other people who help prepare the teaching materials. Duties are shared among them. The studio and classroom teachers must work in harmony if the lesson is to be effective. In order to inform the classroom teacher what material will be in the televised lesson, and also to make some suggestions for activities and practice in the period following the televised lesson, El Salvador, Colombia, Samoa, and indeed most other schools using ITV, furnish a printed Teachers Guide.

Other members of the teaching team differ somewhat from project to project. In Samoa, for example, a producer-director and a "research teacher", meaning one who prepares exercises and study materials for the pupils, are "on the team". In El Salvador, a production group is assigned to each subject: the studio teacher, a director, two subject-matter specialists, a coordinator of materials, and a typist. They

have part of the time of a subject-matter adviser. These people share an office and work together on the script and the plans for each program.

The organization. One hundred and twenty-four people, with a small number of professional advisers, work directly on El Salvador's instructional television. The plan of organization is illustrated by the following chart, in which the size of each section is shown by the numbers in the chart. That is, for example, there are 36 people in Production, and so forth.

ORGANIZATION OF THE INSTRUCTIONAL TV DEPARTMENT  
1969



For readers interested in more detail, we are reproducing the list of positions in several of the larger sections:

Production:

- 1 head (plus adviser)
- \*5 teleteachers (one for each subject)
- 5 directors (one for each subject)
- 10 subject-matter specialists (one for each subject)
- 5 coordinators (one for each subject)  
[handles studio details for each group]
- 5 typists (one for each subject)
- 1 bilingual secretary
- 4 studio helpers
- 1 accountant
- 2 assistants
- 4 secretaries and helpers, etc.
- 12 drivers, messengers, etc.

Materials:

- 1 head (plus adviser)
- 2 editors
- 1 corrector of materials
- 8 artists (plus adviser)

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\* Each subject-matter group has 1 teleteacher, 1 director, 2 subject-matter specialists, 1 coordinator, 1 typist. Science, Social Studies and Math also have part-time services of advisers.

**Materials** (continued):

4 artists' assistants  
1 collator of pages  
2 helpers on collation  
2 photographers  
1 projectionist  
3 typists  
1 coordinator of printing  
1 coordinator of graphics  
1 offset assistant

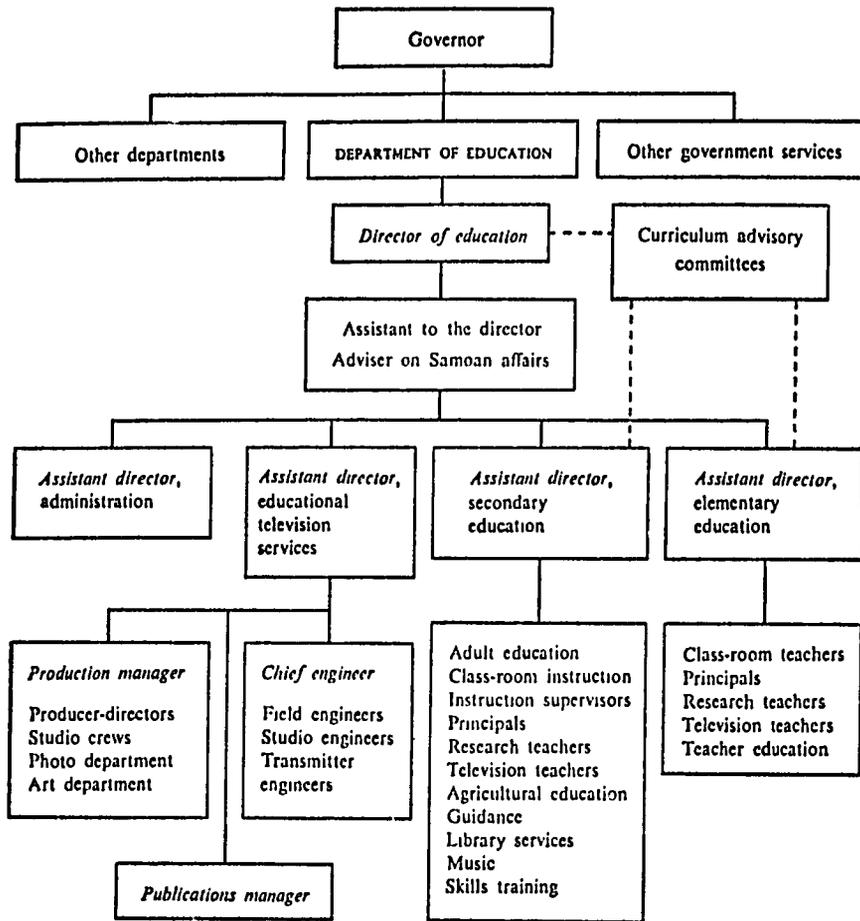
**Studio and plant:**

1 head (plus adviser)  
1 engineer (plus adviser)  
1 switcher  
1 general operator  
1 telecine  
2 cameramen  
1 film man (plus adviser)  
1 audio operator  
2 tape recorders  
1 lighting  
1 set maintenance man  
1 typist

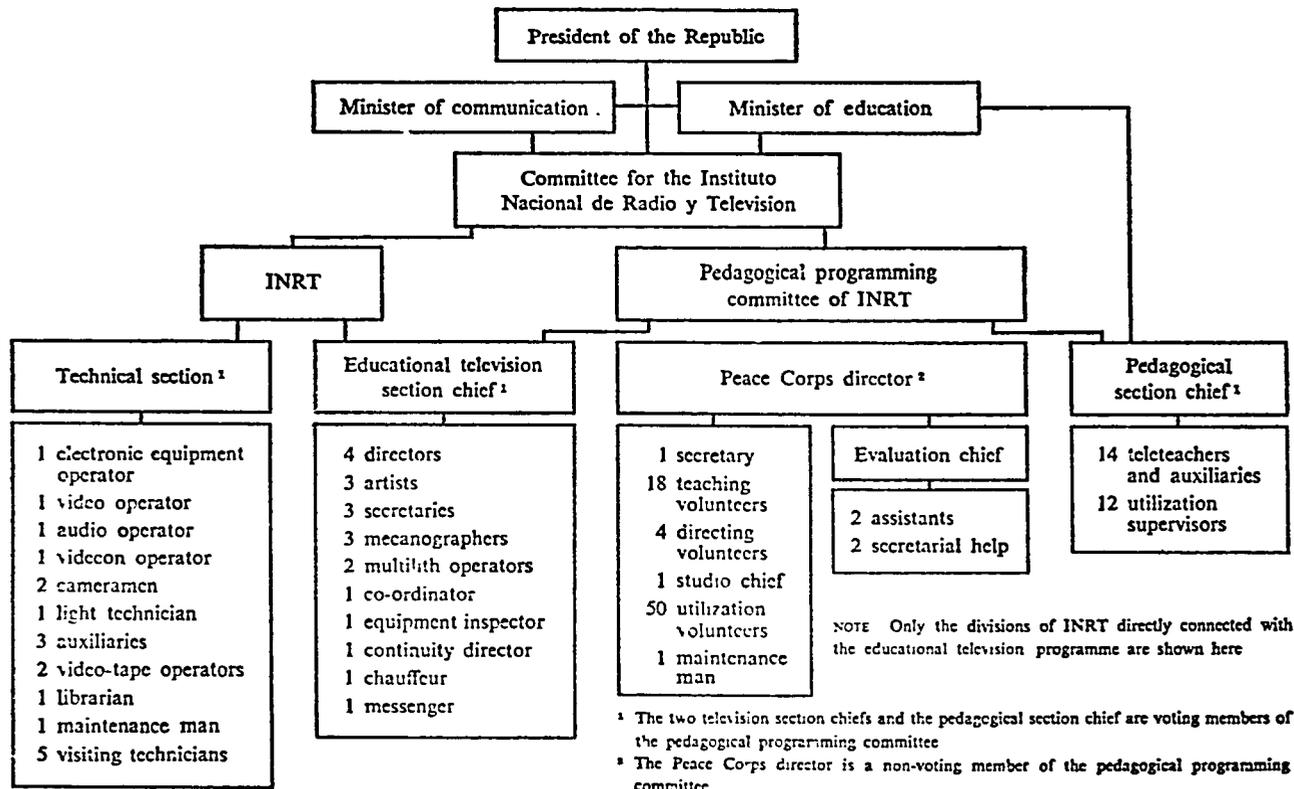
Utilization:

- 1 head (plus adviser)
- 1 coordinator
- 6 supervisors
- 1 promoter (public relations)
- 1 distributor of printed materials
- 2 helpers in distribution
- 1 typist

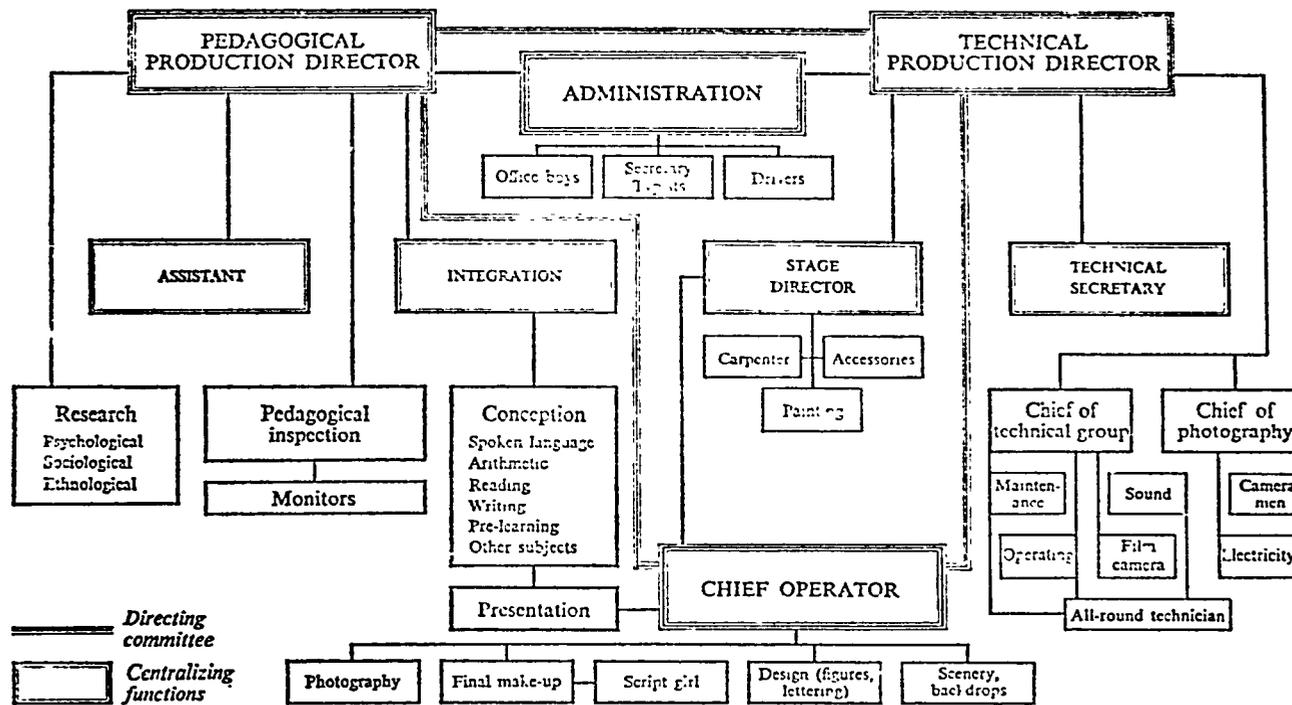
For comparison, here are organization charts for American Samoa, Niger, and Colombia, reprinted from The New Media in Action: Case Studies for Planners (op. cit.).



*Organization of the Department of Education in American Samoa*



*Organizational structure of the Colombian educational television programme*



*Organization of school television in the Republic of the Niger, 1965*

Research and evaluation. The achievements of the Niger pupils, in the first two years of the project, were carefully watched and evaluated. In Colombia, too, a research team was in residence for about 18 months early in the project, and measured the learning in a number of classes, although the principal objective of the research was to study and improve the utilization services. No research whatsoever was done on the Samoa project for the first three years, and very little has been done since. The project in El Salvador will be the first major ITV project in a developing country that has been carefully studied from the beginning, and continuously thereafter for several years. The purpose is not only to feed back information that will help the planners, producers, and teachers in El Salvador, but also to provide useful guidance for later projects of this kind. A research team has been in residence since September, 1968. No achievement scores are available yet, inasmuch as the first term in which television has been used has only recently begun. Baseline data have been collected, however, along with data on changing attitudes and expectations of teachers, and attitudes and aspirations of pupils. Some measurements of the cognitive effects of television beyond those usually shown by achievement tests are being made, and records are being kept on the administrative patterns and problems of introducing a major technological innovation.