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## ABSTRACT

A three year project aimed at providing equal educational opportunity for all students in the seven high schools of Etowah County, Alabama by implementing a county-wide curriculum using a flexible, rotating schedule, audio-graphic network, instructional television, a learning center, and individualized instruction. The report rates the project as successful, providing details on how the district achieved its goals by: 1) increasing its holding power over students; 2) utilizing staff more effectively; 3) reducing inter-school inequities in curricular offerings and instructional quality via the use of televised instruction; 4) raising staff competence; 5) improving the coordination of teaching/learning activities; and 6) attracting qualified new staff. Also included are information on dissemination activities and an evaluation of social studies, science, math and English programs in terms of improvements made in physical plant facilities, organization, instructional materials, curriculum content, and reinforcement techniques. (PB).

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Equalizing Multi-School Curriculum by Technology.

Etowah County Board of Education  
Gadsden, Alabama

ED 079964

U S DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

SECTION A - Final Evaluation

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Introduction

The third year and end of project evaluation follows the format of the project evaluation design of the original proposal. Three objectives were written for the project with six sub-objectives outlined in the evaluation designed to be used for the evaluation of the project. The evaluation design is listed on pages 40-43 of the original proposal which contains the sub-objectives, procedures, and evaluative techniques. The sub-objectives, procedures, and evaluative techniques were identified as a means for guiding the personnel involved in this program toward the achievement of the sub-objectives listed and formed a basis for determining the effectiveness of the project in improving the educational opportunities of the students involved in the project. The evaluation is oriented toward the six sub-objectives and is intended to present valuable data and information which will show how the sub-objectives have been achieved during the three years that the project was in operation. The material that will be presented comes from outside evaluators, first and second year evaluation, staff, teachers and students involved in the operation and evaluation of the project. The project objectives and evaluation design are attached.

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Sub-objective Number I: To Increase the Holding  
Power of Students

There is considerable evidence both objective and subjective, that this sub-objective has been achieved to a significant degree. The school leaver problem that has faced all schools in previous years has improved during the operation of the project. Several schools can document successful efforts toward encouraging students who had dropped out of school during previous years to return on the basis that the innovated program could more adequately meet their needs and be of more interest to them. The wider variety of course offering made available by instructional television helped meet needs of students that the traditional offering could not provide. The flexible rotating schedule and instructional television have given all students attending the seven high schools equal educational opportunities. The holding power has been increased due to the fact that students attending the smaller high schools have the same curriculum offering as students attending the larger schools. All of the above factors have resulted in a decrease in school leavers, thereby increasing the holding power of the seven senior high schools of Etowah County. Chart Number I shows the school leaver number and percentages for the past four years.

The average daily attendance has also improved. This correlates with the decrease in school leavers. If the

## SCHOOL LEAVERS FORM

SCHOOLS	ENROLLMENT	LEAVERS	PERCENTAGES	YEAR
Gaston	312	5	1.6	1970-71
	315	7	2.2	1969-70
	299	7	2.3	1968-69
	294	16	5.4	1967-68
Glencoe	575	11	1.9	1970-71
	552	11	2.0	1969-70
	529	20	3.0	1968-69
	492	9	1.8	1967-68
Hokes Bluff	540	3	.5	1970-71
	524	5	.9	1969-70
	505	11	2.1	1968-69
	534	11	2.0	1967-68
Etowah	737	48	6.5	1970-71
	820	62	7.6	1969-70
	809	77	9.5	1968-69
	838	58	6.9	1967-68
Sardis	611	16	2.6	1970-71
	617	14	2.3	1969-70
	603	25	4.1	1968-69
	622	22	3.5	1967-68
Southside	693	5	.7	1970-71
	645	4	.6	1969-70
	574	5	.9	1968-69
	609	19	3.1	1967-68
West End	409	11	2.6	1970-71
	425	12	2.8	1969-80
	417	21	5.0	1968-69
	427	31	7.3	1967-68
Total	3,877	99	2.5	1970-71
	3,898	115	2.9	1969-70
	3,736	166	4.4	1968-69
	3,816	166	4.3	1967-68

attendance of students is good, the holding power is equivalent. Enrichment programs, presented by the discipline coordinators, regular discipline teachers, college professors, and resource personnel, were made available by television to each grade level of each high school three times a week. The programs presented have been unique in that many involved learning experiences while others were cultural in nature. These programs have been a great influence on the attendance of students. The small group and individualized instruction concepts, made available by the flexible rotating schedule, have been the key to an improved average daily attendance for the senior high schools of Etowah County. Chart Number II shows the increased average daily attendance for the past three years and the year prior to the project. The above features, which seem to be unquestionably correlated to increased retention power, have resulted in higher levels of interest, behavior change and better school spirit of students.

Sub-objective Number II: To Improve Upon Staff Utilization.

The most important factor in improving staff utilization is that all secondary school teachers have a planning period each day, plus four periods each week to work with students or fellow grade teachers in planning and implementing programs to meet individual needs. During these periods teachers are able to plan and work with students in small groups and individually without a reduction in curriculum offering, due to

ENROLLMENT AND AVERAGE DAILY ATTENDANCE  
 ETOWAH COUNTY SCHOOLS

YEAR	ENROLLMENT GRADES 7 - 12	AVERAGE DAILY ATTENDANCE	PERCENT
1970-71	3877	3627.52	93.56
1969-70	3863	3566.44	92.32
1968-69	3678	3336.33	90.71
1967-68	3715	3367.29	90.64

large group, small group and individualized instruction. The instructional television provides enrichment programs for large group instruction plus exclusive offerings. The exclusive offerings have provided students in the small high school the same curriculum offering as students attending the larger high schools. The abilities and talents of qualified teachers, including classroom teachers and college professors as well as discipline coordinators, have been multiplied through the use of the television medium. Prior to the project, students in the smaller high schools were unable to schedule advanced math, science and foreign language courses. The small number of students requesting the advanced courses did not justify offering them. The vehicle used in providing the advanced course offering has been the audio-graphic and instructional television network. Students attending the smaller high school now have the availability of scheduling chemistry, advanced chemistry, physics, Algebra III, Spanish and French from qualified teachers. Chart Number III shows exclusive courses taught during the three years and the number of students enrolled in each.

Since 1968, the majority of teachers have been placed in their major field with only a very small percent teaching in their minor field. Chart Number IV shows the number of teachers teaching in their major and minor field prior to the project and during the three operational years of the project. In summary, teachers have fewer preparations, fewer students, a

Chart No. III

EXCLUSIVE COURSES TAUGHT ON THE INSTRUCTIONAL TELEVISION NETWORK  
AND THE NUMBER OF STUDENTS IN EACH COURSE.

	1971-72	1970-71	1969-70	1968-69
Aerospace Science	65			
Algebra III		10	24	35
Chemistry I	41			
Chemistry II		13	24	29
French I		28	91	130
French II			34	30
German				60
Shorthand II			9	
Spanish I	70	40	59	65
World History	230			
Total	336	91	241	349



TEACHERS IN MAJOR AND MINOR AREAS

Year	Teaching in Major Field	Teaching in Major and Minor Field	Teaching in Minor Field	Teaching Out of Major and Minor Field
1970-71	130	34	19	0
1969-70	104	28	19	2
1968-69	78	24	23	6
1967-68	59	45	27	12

preparation period, a period to work with students in small groups and one-to-one ratio and at the same time a broader curriculum is being offered. Chart Number V shows the number of teachers with planning periods and number of preparations prior to the project and during the operation of the project.

Sub-objective Number III: Reduce Inequity Among Schools  
Regarding Extent of Curricula  
Offerings and Teaching Quality

Achievement of this sub-objective has been discussed in previous sections. All students attending the seven high schools now have equal educational opportunities. Students attending the smaller high schools have the same curriculum offering as students attending the large schools but have been able to keep the many advantages of the small school. The basic idea is to secure a qualified teacher in areas of shortage of qualified personnel such as foreign languages and advanced science courses. In addition to not having qualified personnel, the small number of students requesting some courses did not justify offering this course. The instructional television network has made available the same course offering to the small high schools as is offered to the large high schools. The two-way communication also gives the student an opportunity to communicate with the television instructor.

The number of courses offered has shown a substantial increase since the start of the project. The seven period

## TEACHER PREPARATION AND PLANNING PERIOD

YEAR	With Only 1 Preparation	With 2 Preparations	With 3 Preparations	With More Than 3 Preparations	Teachers With Planning Period
1970-71	35	104	8	1	147
1969-70	25	102	13	5	145
1968-69	16	75	30	22	143
1967-68	17	30	45	48	30

flexible rotating schedule made available at the beginning of the project provided students with the availability of more electives to choose from. A total of 72 different subject offerings are available for students in each school. Some of the courses offered initially by the audio-graphic and instructional television network have grown into full status in some of the smaller schools and are being taught by regular teachers at the present time.

Sub-objective Number IV: Improve Professional Competence of the Instructional and Administration Personnel.

The in-service and workshop training of the junior and senior high school teachers and administrators have been the key to a successful, innovative curriculum for Etowah County Schools. The focus of the curriculum workshop in August of 1969 and 1970 proved to be fruitful in the organization and implementation of methods and content in the teaching-learning process. The following topics were the areas discussed:

1. Instructional behavioral objectives.
2. Organizing and implementing a scope and sequence approach to teaching of various disciplines.
3. Methods of improving the utilization of large group, small group, and individualized instruction.
4. The value of instructional television in the learning process.

The first workshop involved all of the junior and senior high school personnel of the seven high schools. This was the beginning of success for the project. When classroom

teachers became involved in revamping the curriculum, progress began to take place. Three in-service meetings that were scheduled during the 1969-70 school year reinforced the workshop planning. Teachers made changes to improve the scope and sequence and to develop a meaningful program for students in Etowah County Schools.

The discipline coordinators continued to always to improve the instructional program. The workshop in August of 1970 involved a member of each discipline from each school. The discipline leaders were selected by the principals of each schools. This proved to be even more successful than previous workshops. These leaders of each discipline revised the scope and sequence program and also suggested topics to be taught on television. This lead to a most successful year in providing meaningful programs both in the classroom setting and in the large group enrichment program made possible by instructional television. All teachers in Etowah County, for the first time, knew what was to be taught, and when it should be presented. As a result, teachers, principals, discipline coordinators and central administrators worked much closer in providing an instructional program to meet individual needs of students.

Sub-objective Number V: Improve Coordination of Teaching and Learning.

The flexible rotating schedule has been the key to opening the door for better coordination in the academic discipline. The schedule permits all students to be scheduled 20 percent of their time for large group, small group, and individualized instruction. A team of teachers is available to work with students during this block of time. The team consists of an English, math, science, and social studies teacher. Librarians, counselors, and teacher aides also work effectively with the teams. Individual needs of students are recognized much easier by the team approach, and individual assistance is given when needed.

The discipline coordinator work very closely as a team in preparing programs for large group instruction. The English and music coordinators may team for a program when students are studying various periods in literature. The utilization of the team approach has been very effective in improving the instruction in Etowah County Schools.

The scope and sequence concept in teaching the various disciplines has improved greatly since the inception of the project. The in-service meetings held during the school year have been utilized for follow-up activities that coordinators and teachers can use to improve the lessons and enrichment programs in various disciplines.

Sub-objective Number VI: Attracting Qualified Personnel.

Prior to the project, Etowah County experienced a continuing problem in attracting qualified personnel to apply for employment. During the past two years, numerous applicants have applied for employment in Etowah County Schools. Records kept by the superintendent continue to show that many of the applicants indicate that they are desirous of teaching in a system where change is taking place. We now have applicants applying for teaching positions with majors in all disciplines. This was not the case prior to the inception of the project. Many teachers were employed to teach in their minor field. Internal improvements have been made where teachers have been moved from teaching in their minor or with twelve hours in a discipline to their major field. This has been a real asset to the improvement of instruction in Etowah County Schools.

In addition to an improved curriculum by qualified teachers, various resource people from the community and state have participated on the instructional television network. These programs have strengthened the curriculum in many ways. Those participating included former Governor of Alabama, Albert Brewer, Congressman Tom Bevill, former Space Center Director of Huntsville, Alabama, Wernher Von Braun, state senators and congressmen, college professors, and many others.

SECTION B - Effectiveness of the Project as a Demonstration

1. a. The instructional program in Etowah County Schools has shown a tremendous improvement since the inception the project. The activities of the project has influenced the planning of the curriculum for all schools in the Etowah County School System.

The innovations originating with the project have now been integrated into the curriculum providing more enrichment and exclusive classes than during the last year of the operation of the project. At the present time 34 programs are being presented weekly. This is an increase of 8 programs per week over last year. These 34 programs are listed below in three categories:

Exclusive Offering:

World History	4 periods per week	230 students
Spanish I	4 periods per week	70 students
Chemistry I	4 periods per week	41 students
Aerospace Science	4 periods per week	65 students

Remedial Reading and Math:

7th grade	3 periods per week	160 students
8th grade	3 periods per week	144 students



Enrichment:

7th grade	4 periods per week (math, science, English and social studies)	426 students
8th grade	3 periods per week (math or science, English and social studies)	444 students
9th grade	2 periods per week (math or science, English or social studies)	444 students
10th grade	2 periods per week (math or science, English or social studies)	577 students
11th grade	1 period per week (English or social studies)	525 students
12th grade	1 period per week (English or social studies)	436 students

- The data collected during the operation of the project proved to the Etowah County Board of Education that the results of the data were worthy of being continued after the termination of federal funding. During the operation of the project a coordinated effort in building a strong curriculum was established between teachers, principals, students, discipline coordinators and central administrators. The coordinated effort has been the avenue for integrating the activities of the project into the regular school program.

The technology utilized in helping meet the needs of students in this modern industrialized society proved to be an important tool in meeting individual needs of students.

The concept of individualized and small group instruction utilizing all aspects of educational media in the learning

centers established in each school suggested that educational media could aid students in the learning process.

The flexible rotating schedule has proved to be an effective way to schedule students' time. The staff has built programs on the strength of the project, while weeding out the weaknesses. The strength of the project made the Etowah County Board of Education aware of providing a meaningful curriculum for students who will be in leadership roles in the seventies and eighties.

1. c. The following list consist of school systems who have shown an interest in and adopted elements of the project.

Bessemer City Board of Education	Bessemer, AL
Calhoun County Board of Education	Annistorn, AL
Cherokee County Board of Education	Centre, AL
Attalla City Board of Education	Attalla, AL
Gadsden City Board of Education	Gadsden, AL
Blount County Board of Education	Oneonta, AL
Marshall County Board of Education	Guntersville, AL
Guntersville City Board of Education	Guntersville, AL
Jacksonville State University	Jacksonville, AL
Clay County Board of Education	Ashland, AL
Randolph County Board of Education	Roanoke, AL
Talledega County Board of Education	Talledega, AL
Dekalb County Board of Education	Fort Payne, AL
Birmingham City Schools	Birmingham, AL
Oneonta City Schools	Oneonta, AL
Madison County Board of Education	Huntsville, AL
Huntsville City Board of Education	Huntsville, AL
Lauderdale County Board of Education	Florence, AL
Cullman County Board of Education	Cullman, AL
St. Clair County Board of Education	Ashville, AL
Whitfield County School System	Dalton,
Dalton City School System	Dalton,
Chattooga County School System	Summerville, GA
Taylor County Board of Education	Campbellsville, KY
Appling School System	Baxley, GA
Bacon County School System	Alma, GA
Ware County School System	Waycross, GA

Brantley County School Board  
Clinch County School Board  
Pierce County School Board  
Wayne County School Board  
Kittson County School Board

Nahunta, GA  
Homerville, GA  
Blackshear, GA  
Jesup, GA  
Kennedy, MN

### PART III

#### End of Project Report

#### Dissemination Report

#### SECTION A: Summary of Dissemination Activities.

The superintendent, project director and staff have presented an overview of activities of the project to parents of students attending Etowah County Schools, civic clubs, Alabama Association of School Administrators, state principals' study groups, area county educational organizations, Title I and III state coordinators, and participants of the Southern States Work Conference, summer of 1970. These presentations consisted of a report of the progress of the school system coordinated with project activities since the adoption of the project.

1. The presentations that have been made by the superintendent and project staff have been the most influential vehicles in informing educators and the general public of the Etowah County Title III Project. News media, local radio stations, Alabama Cablevision, and Gadsden's Chamber of Commerce have all played an important role in helping to disseminate progress and activities of the project. Two brochures have been prepared which describe the project from the planning to the

development stage. These brochures have been widely distributed throughout the United States. Several articles have appeared in national publications giving a short overview of the project. The staff feels that oral communication has been another successful means of dissemination. This has been accomplished by the superintendent, project staff, central office staff, school administrators, teachers and students serving as "good will" ambassadors in telling what the project has done for the students in Etowah County Schools.

2. The major reason for a successful dissemination effort has been the close, working relationship of teachers, principals, project staff, superintendent, State Title III personnel, and State Department personnel in being able to tell the Etowah County Story. Communication is the success of any undertaking, therefore, the above mentioned people have been knowledgeable of the activities of the Etowah County Title III Project "Equalizing Multi-School Curriculum by Technology".

Attached is an evaluation of coordinators, teachers, and students who were involved in the project.

## EVALUATION

### Social Studies Project 1970-71 Etowah County School System

While striving to fulfill the purposes and to fully implement the benefits of the objectives of our innovative project - to operate seven high schools as one administrative unit, to implement new and revised instruction and methods which better meet the needs of students, and to coordinate administrative and teaching personnel functions into a high school complex located in seven different centers - we have determined that the following are some of the advantages that have accrued to our county school system, our state, and to educational practice generally:

1. Physical Plant - This project has enabled students, teachers, and administrators to observe the better utilization of the existing physical features of each school building. Small, unused or seldom used areas have been turned into productive learning space for individualized study and small group instructional programs. Auditoriums, gymnasiums, and large class rooms have been equipped with television; thus, enabling large groups of seventy-five to a hundred students to receive instructional or enrichment programs at one time. Many of these large areas

were formerly not in use during much of the regular school day. By having to search each school for space needed in this innovative project, all school personnel have become conscious of the need to be watchful for the opportunities offered at each school location and to be mindful of the vast potential available in almost all school situations. This new awareness of the latent possibilities of the physical facilities of our schools will result in better planned future construction and wiser use of present facilities.

2. School Organization - By being in frequent contact with each other, principals, and teachers of individual schools have been able to acquire more knowledge concerning school organization and administration. The efficiency of each school has been increased by the flow of communication in in-service and planning meetings. Our better administrators and teachers have been allowed to demonstrate their leadership abilities in helping others find solutions to vexing problems of organization which might never have been resolved in an isolated situation. Principals who have been reluctant to change administrative policies and methods were shown better ways of obtaining desirable results. As a consequence, some schools which had been bound in old fashioned, lock-step atmosphere and methods have adopted more progressive attitudes which are better serving the needs of modern students.

3. Institutional Effects - No longer do we have a school system of seven isolated high schools. This project has had a unifying effect, both physically and psychologically. The students, teachers, and administrators of the smallest rural school now feel that they are as much a part of the efforts and achievements of the school system as do those who attend, instruct, and administer the largest urban facility. By meeting, planning, discussing common problems, exchanging information, adhering to the same flexible schedule, and offering the same courses, the schools have become one team with the common purpose of promoting education to the fullest extent of all resources. There is little evidence of jealousy between schools. All are receiving the benefits of a coordinated program which reduces the advantages and disadvantages apparent in our former conventional system.
4. Instructional Materials - In coordinating the functions of the seven schools, the problems of instructional materials were recognized and to a great extent overcome. The materials and media instruments in some schools were in much greater supply than in others. By collecting new instructional matter in a central resource center and by listing the materials available at each school, the social studies coordinator was able to schedule to each school the materials needed at any time. All teachers and students were able to utilize all the resources of



the county system; thus, greatly closing the gap between the haves and the have-nots.

An evidence of the effect of adequate media and materials and the benefits that may be realized from their use is the increasing number of teachers who are taking graduate courses in the use of audio-visual materials. By making materials available and by seeing the results of their use by students, teachers have developed more interest in acquiring a better knowledge of the proper use of all types of educational media.

5. Curriculum Content - A complete scope and sequence of all material to be covered in grades seven through twelve has been drawn up by teachers in in-service meetings each year of this project. This has allowed each teacher to express his views on the content of the curriculum and has resulted in a consensus of opinion as to what should be taught and when best to teach a particular concept. This scope and sequence has been particularly helpful in that it offers valuable guidelines to the new and also the experienced teacher concerning the agreed upon importance of certain skills, attitudes and knowledge to be taught, and budgets the teacher's time; thereby guarding against over and under emphasis on any one topic or segment of the course of study. The coordinated scope and sequence keeps the social studies teacher instructing in the same general area as those teachers in other schools.

This enables the teachers to assist each other with suggestions and materials pertaining to the teaching of any area of the course. The coordinator is able to prepare enrichment programs for presentation on television with the knowledge that the program will fit in with the classroom instruction at any given time.

6. Reinforcement Schedule - A closed circuit television network connecting our seven high schools is an integral part of this innovative project. In the social studies subject areas, this television network has been used primarily for enrichment and reinforcing programming. Each week each class of social studies students in each high school have a block of time available in the flexible schedule for viewing a program of enrichment centered around the area of study described in the scope and sequence. These programs utilize various resource people of the area, programs taught by classroom teachers from the different schools over the county, and presentations by groups of students. This reinforcing schedule of programs on television has exposed the social studies students to a wide variety of civic, industry, and government leaders. It has enabled students to observe the techniques of different teachers, and has made possible the use of materials for several hundred students simultaneously. The problem encountered by many small schools in arranging visits to the classroom by interesting and

informative resource people and in the acquisition and use of a wide range of audio visual materials has been overcome by the use of closed circuit television.

7. Effects on Teachers - The coordinated social studies program has brought several significant and needful changes in the methods, outlook, and attitudes of our teachers. In-service meetings in which classroom problems of methods, materials, scope and sequence of content, enriching and reinforcing programs, and administrative difficulties have been fully discussed, have resulted in almost one hundred percent participation by the county's social studies teachers. The exchange of ideas has enabled first-year teachers to approach their task with a confidence that would have taken several years to develop from their own experiences. Older, more experienced instructors have become involved in innovations that have resulted in changing or refining their methods of teaching. Frank, open discussions have led our teachers to question many practices of the past and have made them aware of alternatives available within the confines of the classroom and community. This flow of communication between instructors has resulted in superior teachers influencing others to become more involved in searching for and trying out new methods and approaches.

This project has allowed teachers an opportunity to work with individual students and small groups who need

extra attention. Many instructors are especially fond of this aspect of our program. They recognize that many worthwhile students can be helped by this individualized instruction.

Early in the project's history, teachers were reluctant to present programs on television; however, as they observed the Coordinator and their fellow teachers on this medium, they began to plan how they might improve the quality of the programs. As a result, most instructors are now eager to try their ideas for large group instruction via television. In the school year 1970-71, teachers presented, or helped students present, twenty-eight television programs for our county. In every case, the teacher described the experience as enjoyable and informative. By having to prepare in great detail a presentation for television, the teacher became aware once again of the importance of thorough planning in the classroom situation. Lesson plans have taken on more importance and the quality of classroom instruction has improved.

By far the most significant effect that this project has had on social studies teachers within Etowah County School System, has been the changing of attitudes toward the teacher-pupil relationship. From the old practice of being dull, rote-type information dispensers, our teachers have become searchers for and users of new approaches to making the curriculum meaningful and exciting for entire

classes and individual students.

The interest awakened in our teachers for additional learning in their fields of interest is manifest by the increasing enrollment of social studies instructors in graduate college courses. The teachers are not only pursuing courses in their academic disciplines but are also attending more classes in professional education. This desire to improve their teaching ability will produce a better instructional program in this system for many years to come.

8. Effects on Students - From the outset, the opinions of students on the curriculum content and methods of presentation have been sought. Some of the most constructive suggestions have originated with the students of our system. Since the learner has been an integral part of the planning process, the direction of the project has remained essentially student oriented, the role of the student as major participant in all activities has increased, and a realization of students that something is being done to make school more meaningful and helpful in their lives has been the sustaining force of the coordinated program.

As stated elsewhere in this evaluation, reinforcement and enrichment programs for social studies students have been presented each week. By using films, filmstrips, resource people and various audio-visual materials, students

have been exposed to a variety of learning situations. This variety has served to quicken the interest in the subject area of social studies and in all school activities and disciplines. A student can be sure that each day school will hold the opportunity for a new experience.

The presentation of television programs for large group enrichment has left many teachers free to work with small groups and individuals. Failures by students have been greatly reduced and interest rekindled. The lower school-leaver figures are the proof of the development of better attitudes toward the entire school program.

As a part of the student program of planning and participation in this project, students in individual classes have produced, directed, and presented social studies enrichment programs on television throughout the life of this project. In the school year 1970-71, thirty-six programs originated by students were broadcast. The competition between classes and students to appear on television and present a better program than those students who preceded them has been invigorating to the school spirit all over the county. Student programs have consistently been rated one and two in our popularity groupings. A poll of students showed the various television programs of our closed circuit system to be ranked in the following order:

1. Programs where most of the instruction or enrichment was done by the use of films.
2. Programs, produced, directed, and presented by students.
3. Programs featuring the teaching by the Coordinator.
4. Programs taught by individual classroom teachers.
5. Programs featuring resource people of the area.

Perhaps the greatest effect of the project on students of the Etowah County System has been the feeling of pride engendered in students by virtue of being used in the effort to improve the instructional process. The students of this system are aware of the fact that they have been exposed to as many meaningful learning experiences as any other comparable group in this state. This sense of pride has resulted in a more confident attitude toward college work than had been present before the advent of this project.

9. Community Effects - Enlisting the support and cooperation of the community is essential to the maintenance and progress of any school system. This innovative project has done more to make our school community aware of the deficiencies and better qualities of our schools than any program of the past had been able to do. The resultant change of community attitudes toward the role of the school, the effectiveness of the school instructional program, and the adoption of new approaches to educate the area's

children should be a positive force for educational improvement in the years to come.

Administrators, teachers, and students have used opportunities in civic clubs, churches, and governmental agencies to disseminate information to the public about the program. Interesting local events and outstanding speakers have been telecast on our network. Leaders in industry, commerce, agriculture, labor and government have appeared in school classrooms and as resource people on television. These community leaders have in turn advertised our project throughout their organizations. Many civic groups have praised the efforts and results of this program. The publicity enjoyed by this project has resulted in a broader base of support for public schools which should result in better education and better facilities in the future.



## Advantages of a Scope and Sequence

The preparation of and an adhering to a scope and sequence of social studies content for each course in this discipline is a necessary and helpful aspect of our innovative project. Below are some advantages that have become apparent to me as a first-year teacher from our preparation of the scope and sequence for the social studies curriculum:

1. Since the scope and sequence is a consensus of opinion of all the teachers in the system, it is particularly helpful to a first-year teacher. It gives immediate direction as to what should be taught, the amount of emphasis to be placed on any concept, and the logical time to teach the specific concept. A first-year teacher can begin his task with more confidence.
2. Each teacher has several opportunities throughout the year to express himself on any aspect of the scope and sequence he feels should be changed; thus, it is being constantly up-dated to take care of needed changes. This keeps the program from becoming staid and unduly restrictive.
3. Since each teacher is working from the same general

plan, a new teacher can easily gain helpful suggestions for improving his own methods of presentation of materials and can receive help in acquiring materials for teaching.

4. By preparing a scope and sequence early in the school year, the teacher has ample time to prepare presentations well in advance of their need. This also allows the teacher to advise the Coordinator as to what enrichment programs will best supplement classroom instruction.
5. The scope and sequence is a valuable budgeting device. It keeps a teacher from becoming too absorbed in one topic to the neglect of other important areas.

As a first-year teacher, I can say that our social studies scope and sequence has pulled me through several spots of preplexing indecision.

Phyllis J. Watts  
Social Studies Teacher  
Etowah County High School  
Attalla, Alabama

## A Student Looks at the Etowah County Innovative Project

As an eleventh grade student at the smallest of the seven high schools in our county system, I have been helped by this project in several ways. I list below some advantages I have recognized as being the result of our program.

1. The television programs, in particular, cause me to feel that my small school is receiving the same benefits as the largest school in our county.
2. Television has made it possible for me to take physics and French at my school. We are too small to be able to afford a teacher in our school for these two courses.
3. Television has made it possible for us to see and hear many people who would not have been available to the students of our school. Interesting lessons and films have been televised that many of us would not have had the opportunity to enjoy otherwise.
4. The flexible schedule and large group instruction has allowed teachers the time to work with individual students. This has resulted in many students being able to pass courses in which they had been making failing grades.
5. I am proud to be a student in a system which tries new ways to help students.

Barry Boatwright.  
Gaston High School

## SCIENCE EVALUATION

In an effort to upgrade instruction, better utilize personnel, make better use of media and, in general, to equalize the curriculum of the seven county schools, the Etowah County School System implemented an audio-visual-graphic link-up of these schools and outlined three basic objectives to be followed. These objectives are:

1. To operate seven high school centers as one administrative unit.
2. To implement new and revised instruction and methods which better meets the needs of students.
3. To coordinate administrative and teaching personnel functions into an innovative program.

PHYSICAL PLANT - Generally speaking, the buildings are of the traditional type, however, this project has helped school personnel make better use of the existing space and facilities of the buildings. As examples, we now have rooms equipped for large group instruction, small group instruction and individual study. Instructional television has been made available to the large rooms and, in some cases, to the small rooms. The buildings have been reworked in some instances to provide individual use of such media as loop, film and filmstrip.

SCHOOL ORGANIZATION - School organization has been greatly affected by the project. Coordinators have been made available in each discipline. These people work directly with the teachers of their discipline. It is the coordinators' responsibility to convey information and materials as well as to help write and co-ordinate such things as a scope and sequence and text book selection. It is known that the role of the coordinator has helped to tie the seven schools together as one administrative unit. It is also the job of the coordinator to seek enrichment programs for classroom activity. These programs are usually selected after consultation with classroom teachers.

Through frequent contact between members of each school, the schools have been able to benefit from each other in areas such as media, instructional methods and techniques, school organization, and administration. The project has initiated new teaching techniques such as small and large group instruction, individual instruction, the correct use of media such as film and filmstrip, and the individually guided education approach to learning. Teachers are now making an attempt to learn what a student's difficulties may be and what steps or methods of teaching may be used to help him. We have learned the necessity of a clear-cut scope and sequence and its effect upon the total learning experience. Teachers from each school participated in workshops during the summer months and such a scope and sequence was realized. The advantages are well known and will not be discussed here.

Before new teaching techniques could be implemented we had to take a close look at scheduling. The schedule that we are presently using has been a definite advantage to our program. We have long blocks of time available during the morning hours; these may be used for labs and in any other situation where longer time periods are needed. This schedule assures that no one class period will meet at the same time twice each week, thus eliminating an element of boredom for students. Also, each class will meet during the prime learning hours of 8 to 12 a.m.

INSTRUCTIONAL MATERIAL - We have experienced a continual upgrading of instructional material. Today we are a long way from the chalk and chalk board. We make use of charts, models, films, sound filmstrips, loops, tapes, instructional television and other methods of instruction. These materials are used in conjunction with the small group, large group, and individualized methods of teaching. In addition, use has been made of outside resource personnel as well as student presented programs. The use of the schedule and the scope and sequence has made much use of instructional material and resource people possible.

REINFORCEMENT SCHEDULE - The heart of the project is to provide equal opportunities for all students in Etowah County Schools whether they go to a large school or a small school. Outlined here are the basic ingredients necessary for such an education:

1. Instruction that is of equal quality.
2. Equal curricular offerings.
3. Equal enrichment.
4. Increased motivation.

We feel that the combination of the flexible schedule, well thoughtout scopes and sequences, correct use of media, using teachers to the best of their ability, the availability of areas for small group and individual instruction or self-learning, and enrichment and resource program personnel will greatly facilitate the learning experience.

The Conference Learning Center (CLC) provides for self-study and large, small, and individual study. In conjunction with the CLC, we have enrichment programs co-ordinated to fit the classroom situation. In addition to enrichment and resource programs, we have used the ITV network to provide classes that the student may not be able to take in the classroom setting because of such difficulties as teacher availability, equipment, and in some cases, not enough students enrolled to justify a teacher unit. Therefore, we feel that we have provided enrichment and resource programs as well as regularly scheduled classes via instructional television.

EFFECTS ON TEACHERS - The project seems to have tied together the teachers of each discipline. The teachers have become aware of methods and materials used by their fellow instructors. As mentioned before, teachers participated in the writing of a scope and sequence and there seems to be

mutal concern for the student and the learning process. Teachers have also been introduced to media and its proper use which seems to be an asset to the total school program. The project has led to a searching attitude by the teacher - an attitude of how can we better prepare the student. No longer are the teachers isolated from each other so that each may go a different way; teachers now look at themselves and their fellow teachers from a constructively critical viewpoint. This exchange of information has lead to many teacher technique changes and some superior teachers have influenced others in such areas as methods, materials, scope and sequence enrichment and other learning techniques.

In summary, a most significant effect of the project has been the improvement of the teacher-student relationship. The teachers now look for methods and materials to enhance the total learning experience.

EFFECT ON STUDENTS - Etowah County students are accepting this project as an attempt to help them get a quality education. A sense of pride is evident in some students as a result of being a part of an innovative school system. It is believed that most students now feel that the school is student-centered and not teacher-centered. This is largely the result of the small group and individualized study process which places the emphasis upon those students in need. Because of the teacher-student relationship, which is a result of small group and



individualized instruction, the students feel the teacher's concern for his well being. As a result, dropouts have been minimized and failures are less. Also, the correct use of media is thought to have been a factor in preventing dropouts and failures. Loop, films, filmstrips, ITV programs, and others have been used during the Conference Learning Center (CLC). Students realized the value of such media and have used it to an advantage.

The student now has a wider selection of courses than in the traditional situation. Foreign languages, Algebra III and Chemistry II are a few such courses. These courses were made possible because of an instructional television network and would not have been possible otherwise. In the area of science, Chemistry II was an exclusive course offered over the instructional television network. In evaluating the ITV Chemistry II course, a control was used. Etowah County High School Chemistry II students were not taught via instructional television but in the regular classroom by a classroom teacher. No significant difference was noted in the course content or comprehension by the students. Students were transported to a centrally located school for the purpose of laboratory work. Laboratory work seems to have been adequate. It is felt that, due to instructional television, Etowah County students are better equipped to cope with college course work as a result of exclusive courses.

Classes have been made more meaningful as a result of

enrichment programs presented on the instructional television. These programs have been presented by resource personnel, students and the science coordinator. Films, filmstrips, and other media have been used in conjunction with these programs. Use has made of special programs such as a program prepared by the National Aeronautics and Space Administration, specially prepared programs on drugs, a fossil program by a fossil expert, a doctor on cancer and related diseases as a result of smoking, environmental engineers, conservation programs by the State Department and many others. It is felt that the use of such programs greatly enhance the learning experience of all students involved, whether college preparatory or students going out into the world of work.

The project seems to have tied together the schools as one unit. Students have a sense of belonging and no one feels left out. The students relate to one another and they feel that the quality and quantity of the learning process is equal regardless of school size. Students in the smallest school know they are getting the same opportunities and advantages as those students in larger schools.

Finally, there is evidence of less classroom boredom on the part of students and teachers. Classes rotate every day due to the unique schedule, the student has special ITV programs, the CLC room is available for small group and individualized instruction and multi-media is available for use by the student.

## MATH EVALUATION

In order to implement the objectives set forth in the Title III project the following methods and procedures have been utilized to better meet the needs of math students in a unified and coordinated school program located in seven different centers:

1. Working under a master schedule has permitted the math coordinator to accomplish the following objectives:
  - (a) Students in several of the smaller schools have been given the opportunity to schedule Algebra III through the instructional television network with the math coordinator as teacher.
  - (b) The instructional television network has provided not only classroom instruction but enrichment through various community and are resource personalities that otherwise would have been unable to spread their time between the various schools.
  
2. To guarantee equal opportunities for students from both large and small high schools, the school year was preceded with a math workshop where the math teachers under the leadership of the math coordinator worked out a scope and sequence for the year thus insuring that each student would have the guarantee of quality instruction both from the classroom teacher and enrichment programs presented through the instruc-

tional television network. The teachers discovered that through a mutual co-operation and coordination of their efforts their program has vastly improved and has brought the math student into a new threshold of learning experiences. The math teachers have experienced a new zeal in their teaching approach and have been able to relate to individual student needs in this new environment.

The math teachers are constantly working together in search of better ways to meet the needs of individual students. One of the methods being used now was developed this year by the math instructors from various schools. Each math teacher made a taped program of their strongest subject. These tapes were duplicated and have been placed in the media centers for student use.

Plans are being formulated to pre-test all math students at the beginning of the next school year so that more emphasis may be placed on individual student needs.

## RESULTS OF WORKSHOP

As a result of the Scope and Sequence Workshops which was held prior to the opening of school, the teachers have been able to work in a more unified manner. Generally speaking, each class of each subject taught in each school was coordinated by studying the same topics at the same time. Since the courses were coordinated, the television programs which were presented were more meaningful because they were related to the topic being studied in class and they served as enrichment materials.

The Scope and Sequence outlined general objectives and goals for the year. This served as a constant reminder to teachers who could not become negligent because there were goals to be met on schedule.

Mrs. Anna Wayne Saffels  
Math Instructor  
Etowah County High School  
Attalla, AL

## EVALUATION

### Mathematics Teachers Workshop

August 1970

A group of eight math teachers and the math coordinator for the county held a five-day workshop at which time they set up a scope and sequence of all the mathematics courses to be offered in Etowah County from grades 7 through 12.

The objectives were outlined in each course so that the students would understand what the courses offered.

The CLC programs were planned for the entire year to relate to what was going on in the classroom.

A decision was made that each of the teachers would make a tape of some phase of mathematics enrichment and the tape would be distributed to each of the schools.

The workshop proved to be very rewarding in that it brought about a better understanding of the needs of the mathematics program and it helped us to coordinate all the mathematics and all the schools into a better working unit. It was felt that this unity would not have happened without the workshop.

Don Richey  
Math Instructor  
Glencoe High School  
Glencoe, Alabama

## ENGLISH EVALUATION

The Title III project has been beneficial to the English Department of Etowah County in the following areas:

1. Workshops and in-service meetings have been more effectively used bringing about unity among the teachers of each school in the system.
2. A course of study has been developed aiding the inexperienced as well as the experienced teachers and most of all the students.
3. Television programs have added variety to the classroom.

Workshops and in-service meetings for the past four years have been used to exchange ideas on effective methods for teaching grammar, composition, and literature, to develop a sequential course of study in English for grades 7 through 12, and to plan subject matter for television programs. English teachers county wide and in the individual schools work more cooperatively than in previous years as a result of planning and working together in the several workshops held and in the quarterly in-service meetings. Five years ago, for the most part, each English teacher within an individual school taught as a separate entity, and the exchange of ideas among English teachers of different schools within the system was almost nil. Cooperation has extended to several areas as teachers in the various schools in the county not

only share ideas but also share materials and audio visual aids.

At least two workshops and several in-service meetings have been devoted to developing a sequential course of study for English students in the junior and senior high grades. Before the scope and sequence was developed, a new teacher coming into the system was given the grammar and literature textbooks and was left on her own to make several important decisions. She had to decide first of all whether she should begin teaching grammar or literature. If she selected grammar, she then had to decide with which phase of grammar to begin and how much material she hoped to teach in a six-weeks' period. Most of the time she started with the first chapter of the book and covered as much material as she could during the school year. A new teacher usually made these decisions on the basis of her few short weeks of practice teaching in a situation where the work for the year had probably been planned before she arrived, and she usually made these decision without the aid of an experienced teacher.

A course outline was clearly needed. All teachers in the system were involved in the early stages of planning the scope and sequence. The teachers worked in groups according to the grade level and how much time should be devoted teaching the concepts. For the first time in the county, students had the benefit of a unified effort to provide them with a well-planned



program in grades 7 through 12.

The scope and sequence has been revised two times and will continue to be revised as the need arises. The scope and sequence is a general outline and does not have to be adhered to rigidly. In almost every classroom there are the accelerated students who can proceed at a faster rate; and at the other extreme, there are those who find it difficult to keep up with the average students in the class. Teachers have been encouraged during the past four years to make allowances for these varying individual differences.

(Mrs.) Cheryl Tommy, as a new teacher in the system, summarized the advantages and disadvantages of the scope and sequence as follows:

#### SCOPE AND SEQUENCE

Anytime there is a planned and organized course of study prepared by the teachers themselves, there will be, generally, better and more cooperation from all teachers. Since this is true, I feel that our scope and sequence is much better than allowing each teacher to work on her or his own ideas and hope that we will be together at the end of the year.

#### ADVANTAGES

1. Each teacher is aware of what all other teachers are working on any given six-weeks.

2. Television programs can be planned well in advance so that all concerned may know ahead of time.
3. All areas of study, literature, grammar and writing, can be properly proportioned so that one area will not be neglected.
4. Variety in study can also be maintained. For example, there is no need for one six weeks to just be writing or grammar but a mixture.
5. Having been worked out in advance, teachers can be on the alert for additional help from outside sources, such as movies, television, or speakers.
6. Any student moving from one school to another within the system will not be ask to repeat something already studied or have to omit something needed because he moved to another school.
7. Teachers can exchange ideas and methods in advance, and therefore help each other provide variety in teaching.
8. New teachers, especially first-year teachers, have a planned outline to follow without having to use the "hit-and-miss" methods sometimes used.

#### DISADVANTAGES

1. Sometimes too much emphasis might be placed on strictly following the scope and sequence to the extent that teachers might hold students back when they are able to advance faster than the scope and sequence allowed.
2. There is the continuous problems of not enough text-books; therefore making it necessary to give some students in the same grade level grammar while the others study literature. Following the scope and sequence becomes impossible in this situation.
3. There might be the situation where all teachers do not feel involved in planning the outline, and therefore these would not feel the need or obligation to follow the planned program.

Mrs. Cheryl Tommy  
English Teacher  
West End High School  
Walnut Grove, Alabama

Television programs have added variety to the classroom. Teachers within the system, the English coordinator, and teachers outside the system have presented television programs. In addition, students have presented television programs ranging from skits, poetry, tall tales, etc., written by the students themselves to plays written by professional playwrights. Furthermore the television programs have had a unifying effect. Students in each grade level in each school in the system have participated in a program at the same time.