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ABSTRACT

The Project for Facilitating Educational Achievement Through Telecommunications (Project FEATT) attempted to demonstrate the efficacy of televised instruction in a home-based early childhood education program for handicapped children. In cooperation with community and medical services, an early childhood education program screened and provided orientation for participants. After creating instructional television programing and providing outreach services for users, the project carried out extensive research on its effectiveness. It was found that television was an effective training procedure for home-based parent training and that parents can learn training strategies for specific development skills for their handicapped child. Also, the most effective means of communicating training strategies to parents of handicapped children was via a combination of televised instruction and accompanying activity guides. (HAB)

LIGHTS, CAMERA, ACTION: THE FEATT STORY

The Project for Facilitating Educational

Achievement Through Telecommunications

Final Report

By

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The success of Project FEATT would not have been possible without the dedication and skill of all the FEATT people. To all of them I wish to extend my undying gratitude. The creative talents of Myrl Weinberg, a very special person, and to her wonderful women, many thanks. To Pamm Mattick, who brought me to Purdue, to Alice Hayden, a great and very special lady who believed in FEATT from the beginning, to Jack Montgomery and his Marshalltown crew who provided many basic-instructional strategies and who kept my hat size normal, and to all our consultants we say 'thanks' for helping to create this very special project.

I wish to say a special word about Jim Miles, my co-director, whose vision of television's role in our society inspires us all. Jim, Ray Wolf, and the rest of the Telecommunication Center staff worked ceaselessly to make the Project a success.

To Sally Coffman who lent a real professional touch to our scripts 'many thanks.'

Particularly I wish to thank William R. Reid, Chairman of the Advisory Committee, for his continued support and guidance and all the members of the Advisory Committee without whose support the Project would not have been a success. The vision and continuous support of Gilbert A. Bliton, Jr., Indiana's gifted State Director of Special Education, was invaluable and portends a bright future for all of Indiana's handicapped citizens.

A very special word of gratitude to R. Paul Thompson who supported us, believed in us all the way, and perhaps most importantly put up with the Project director. A special word of thanks to Frank Withrow,

Malcolm Norwood, and all the others in the Bureau of Education for the Handicapped who helped us.

Many thanks are due to Sara Cochran and her girls who interacted so effectively with the parents and community agencies.

No television series works without able performers. Roger Frazier was simply superb. Virginia Pearson, Jenni Dayrell, Dianne Talbot, Jan Blehl, and Nancy Krause were all super. Their professional skill and commitment made the FEATT programs work.

I also wish to express my gratitude to Tom Holsworth and Donna Morlan who help to write this report. Donna and her public information crew performed effectively throughout the life of the Project.

No Project is effective without the support of an able clerical staff. My heartfelt thanks to Wilma Foust, Barbara Smith, Lois Reynolds, Mila Shine, and all the rest of the gals who have so ably assisted us.

We wish to express our appreciation to the Purdue University administration including Robert L. Ringel, Don R. Brown, Robert B. Kane, Joseph L. Waling, Charles R. Hicks, Lee Isaacson, Diane Troyer, and Sam Marks. Their continuous support is testimony to the University's commitment to Indiana's handicapped citizens.

Finally, my heartfelt gratitude goes to the FEATT children and parents. Next Steps Together is really their gift to the nation. Without them the Project would not have been possible.

Robert J. Currie
West Lafayette, Indiana
June 25, 1976

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INTRODUCTION

The Project for Facilitating Educational Achievement Through Telecommunications (Project FEATT) was an outcome of two revolutions in our society coming to fruition in the 1970's. The first revolution encompasses the development of the electronic media and their effect upon human communication. The second revolution is the emergence of national, state, and local commitment to full services for all handicapped citizens. This commitment is evidenced by both the outcomes of litigation and the passage of mandatory legislation in the several states. This educational revolution has led to the development of early education for handicapped children.

The efficacy of early educational opportunities for handicapped children has been demonstrated by the success of the handicapped children's early education program projects. The more than 150 federally supported projects - sometimes referred to as First Chance Projects - are developing many different approaches for serving handicapped children. The Bureau for the Education of the Handicapped estimates that 75 percent of the 1,000,000 handicapped children of preschool age are still not receiving the special services that they need. In another needs assessment the President's Committee on Mental Retardation suggested that during the 1974-75 school year there was an estimated 927,000 unserved handicapped children between the ages of birth and five (HEW) 1975.

Failure to provide early education opportunities may result in more costly long-term care. In addition the lack of early opportunity may result in many children failing to develop to their optimum. Further evidence of the nations belief in early education is contained in the provisions of Public Law 94-142. The law provides that all handicapped children ages 3-21 may enjoy special education in related services. It goes further by providing for early identification, and screening. Despite the substantial federal commitment, there exists a considerable problem in that few of the several states currently mandate services for children of preschool age. To partially cope with this problem, the law provides for special preschool incentive grants. Another complicating factor is the current economic situation faced by federal, state, and local education agencies. Consequently, all governmental agencies need to seek cost-effective alternative service delivery systems to meet the needs of currently unserved preschool handicapped children. The cost estimates of the seven preschool models validated up to 1975 indicated that the cost per child in those projects ranged between $650 and $2,200 per year. While such costs are not exorbitant compared to the potential cost of long term institutionalization, such costs are beyond the financial resources of most state and local agencies at the present time. Another problem in the provision of early childhood opportunities is the lack of trained personnel with which to staff programs. With continuing substantial personnel deficits in school age programs, it is improbable that training institutions can prepare the personnel to staff full service preschool programs in the near future. One solution to all these problems appears

to be the application of educational technology.

The new electronic media appear to offer acceptable and sometimes spectacular solutions to the problems of educating many children. These new media represent what has been called "the fourth revolution." (The Carnegie Commission, 1972). Eric Ashby (1967) has identified four revolutions in education:

> The first revolution occurred when societies began to differentiate adult roles, and the task of educating the young was shifted, in part, from parents to teachers and from the home to the school.
>
> The second, which, in some places antedated the first, "was the adoption of the written word as a tool of education." Prior to that time, oral instruction prevailed, and it was only with reluctance that writing was permitted to coexist with the spoken word in the classroom.
>
> The third revolution came with the invention of printing and the subsequent wide availability of books.
>
> The fourth revolution is portended by developments in electronics, notably those involving the radio, television, tape recorder, and computer."

This fourth revolution, long predicted, has been developing for several decades. Its emergence has been slow and sometimes painful. It does, however, appear to offer some substantial benefits as an instructional tool. The United States Office of Education recognized the promise of the electronic media through its issuance of RFP 74-5 in 1974. This represented a major commitment by the Office's Bureau of Education for the Handicapped to investigate the feasibility of using the electronic media to meet the needs of severely handicapped children and youth.

Instructional television is usually considered to be a component part of educational television (ETV). Educational television is a term which has broad applications in the area of providing information and

education. On the other hand, instructional television or ITV aims at providing carefully structured programming designed to facilitate the acquisition of certain cognitive or behavioral skills. Sesame Street is an example of educational television which seeks to inform a broad audience. Project FEATT's "Next Steps Together" series represents instructional television with precise behavioral change objectives and clearly specified instructional procedures. The development of educational and instructional television has given rise to the emergence of two separate production philosophies. On the one hand is the broadcaster who emphasizes production based on commercial broadcast standards. On the other hand is the audiovisual specialist or educator who views television as another classroom tool. The second point of view has led to the proliferation of "home movies" and videotape programs sufficiently lacking in the production values necessary for general distribution and impact. In general, the quality of video production will enhance or destroy the impact of an instructional approach. High quality video production will contribute materially to good instructional programming. Conversely, poor quality can detract greatly from the impact of the programs. The ITV producer has the responsibility of producing materials of sufficient quality to hold the viewers' interest. It is as easy to turn off the programs as it is to turn them on.

Project FEATT which was funded on July 1, 1974, for a period of two years was an attempt to demonstrate the efficacy of televised instruction in a home based early childhood education program for handicapped children. It was a basic premise of the project that instructional television could be both entertaining and effective.

PURPOSE

The original purpose of Project FEATT was to teach parents how to teach their severely handicapped, homebound children utilizing a mid-band channel on CATV systems and a channel on 2500 Mhz (ITFS) systems and an interactive or talkback mode, essentially a telephonic communication system. In achieving these purposes the project was designed to investigate the efficacy of an interactive telecommunication service delivery system in meeting the needs of severely handicapped children. Another anticipated outcome was the production of a series of carefully sequenced videotapes which could be used throughout the United States to train parents, professionals, and paraprofessionals.

As the Project developed it became apparent the Project consultants, BEH personnel, the Project Advisory Committee, parents and child-serving professionals across the country forsaw greater uses for the tapes than was originally envisioned. Consequently, there was increased emphasis on the need for high quality programs produced preferably in color and in a standard length. As a result the Project staff determined that 60 videotape programs would be the most realistic goal capable of being accomplished by June 30, 1976. This increased emphasis on production necessitated realignment of priorities and expenditures of funds.

FEATT PEOPLE

Above all else, FEATT was people. The efforts of many adults and childrens went into the planning and production of the FEATT programs. In every sense of the word FEATT was a team effort.

The Families

The FEATT families came from almost the entire northwest Indiana area including the cities of Indianapolis, Kokomo, Lafayette, West Lafayette, Gary, Hammond, and East Chicago. In addition, there were many participating families who lived in smaller towns or in the rural areas of the northwest quadrant of the state of Indiana. More than 185 children were screened for inclusion in the Project. Out of this number of 185, 85 families were eventually chosen for inclusion in the talent pool, i.e. those families who acted as talent for the programs. Another 50 families comprised the demonstration group. Therefore, 270 adults and 135 children contributed their services either as talent pool or demonstration group participants. Of the above number, 100 adults and 50 children received direct services during the past year from Project FEATT.

The Staff

The production of the FEATT programs involved the talents and dedication of personnel from three Purdue University departments, the Department of Education, the Purdue University Telecommunication Center, and the Purdue Audio Visual Center (Table 1). The success of the Project was due in large measure to the talent and dedication of these staff members. Throughout the duration of the Project, the staff had the assistance of many other persons. The Advisory Committee (Table 2) provided wise counsel and direction and assisted in the technical

TABLE I

LIST OF FEATT STAFF

Administration	
Director	Robert J. Currie
Co-Director	James S. Miles
Associate Director	John H. Glade
Administrative Assistant	Wilma Munson Foust
Traffic/Scheduling	Evelyn E. Halsmer
Bookkeeper/Accountant	Helen Reed
Secretaries	Barbara Paddock
	Barbara Smith
	Mila Shine
	Lois Reynolds
	Madonna Vollmer
	Marsha Slipher
Receptionist/Switchboard	Annabelle King
Assessment	
Assessment Coordinator	Sara Cochran
Assessment Specialists	Debra Scott
	Jenni Dayrell
	Patricia Shudick
	John Buckley
	Jay Bartner
	Christine Kennedy
	Janice Lowry
Program Development	
Program Coordinator, 1974-75	Gary Collings
Program Development Manager	Myrl Weinberg
Program Development Specialist/Head Scriptwriter	Sally Coffman
Program Development Assistants	Marie Kirk
	Steve Weinberg
	Judy Myers
	Donna Morlan
Scriptwriters	Joan Lohmann
	Linda Eppen
	Laura Anderson
	Marlene Laurendeau
	Carol Fincher
	Marie Kirk
	Steve Weinberg
	Judy Myers

TABLE I Cont'd

LIST OF FEATT STAFF

Production		
	Production/Distribution Manager	Ray Wolf
	Producer/Director	John Beabout
	Producer/Director	Charles Mills
	Photographer	John Strathman
	Production Ass't/Lighting	Gerald Gerrard
	Production Ass't/Photographer	Neil Sydor
	Prod. Ass't./Grad. Ass't.	H.Joe Hall
	Grad. Ass't.	Tan See Lai
	Artist	Keith Butz
	Artist Ass't.	Charles Adams
	Chief Engineer	Phillip B. Walden
	Tech. Operations Engineer	William Walters
	Recording Engineer	Ivan Spencer
	Production/Recording Engineer	John Oppy
	Production Engineer	Richard Light
	Staff Engineer/Equip. Install.	Walter Crick
	Staff Engineer/Repair & Maint.	R.D. Laird
	Student Crew	Randy Tiller
		Frank Bucci
		Gordon Brown
Audio-Visual		
	Audio-Visual Manager	Ed Ferringer
	Film Photographer	Ted Luce
	Film Photographer/Animation	Jess Senn
	Graphic Artist	Pam Lassiter
	Artist/Animation	Ed Blackwell
	Film Processing	Jim Ratliff
Public Information		
	Public Information Officer	Terry Blosser (74-75)
		Donna Morlan (75-76)
	Public Information Assistants	Judy Sorton
		Barbara O'Conner
Evaluation		
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TABLE 2

LIST OF PROJECT FEATT NATIONAL
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evaluation of the Project. The Project's national consultants (Table 3) and jury (Table 4) helped in the initial planning, reviewed the scripts for accuracy, and helped to evaluate the finished product.

The program development staff, under the able direction of Myrl Weinberg, planned, scrubbed, polished, and re-polished the scripts until they shone like a diamond. The production staff repeatedly met demands far beyond the technical capabilities of the equipment with which they were working. Raymond Wolf and his crew, at all times, exhibited a high level of professional competence.

Any television series is only as good as the performers in front of the camera (Table 5). Project FEATT was extremely fortunate in securing the services of Roger Frazier who acted as the program host. The talented trainers, parents, and children were instrumental in the series' success. These dedicated people learned to be comfortable in television's never-never land atmosphere. Performing under hot lights and in front of cameras with their winking red lights is an unnerving experience at best for inexperienced people. Their perseverance and patience was remarkable.

The production of this series was not without problems. On the one hand were creative special educators who were naive with regard to television. Then there were the talented television professionals who had relatively little experience with handicapped children. There were many stops and starts in the building of a production team. However, by the last half of the Project's second year, the FEATT people had become an outstanding production unit, the equal of any currently working in the field of television.

TABLE 3

LIST OF PROJECT FEATT CONSULTANTS

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* * *

Joe Leonard
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Valparaiso, Indiana 46383

* * *

TABLE 4

LIST OF PROJECT FEATT JURY MEMBERS
(Parents)

Mrs. Bette Rubinstein

Mrs. Carol Smith

Mr. John Henderson

Mr. Alton Hocking

Mrs. Shelley Stone

Mr. Glenn Sassaman

Mrs. Grace McFerrin

Mrs. Joyce Fultz

Mrs. Phyllis King

Mrs. Judy Orr

Mr. Ronald Reed

Mrs. Billie LeClaire

TABLE 5

LIST OF FEATT PERFORMERS

Roger Frazier 6770 A East Cedar Avenue Denver, Colorado 80224	Program Host
Jenni Dayrell Assessment Specialist Project FEATT	Trainer
Virginia Pearson Parent Educator Wabash Center Lafayette, Indiana	Trainer
Dianne Talbot, R.P.T. Physical Therapist Wabash Center Lafayette, Indiana	Trainer
Jan Blehl Language Development Specialist Comprehensive Developmental Center Monticello, Indiana	Trainer
Nancy Krause Language Development Specialist Comprehensive Developmental Center Monticello, Indiana	Trainer
The Children and Parents of Project FEATT	

FEATT's HOME BASED EARLY CHILDHOOD EDUCATION PROGRAM

One major outcome of Project FEATT was the development of an innovative electronically mediated home based, early childhood education program for handicapped children. The use of televised instruction in an individually prescribed preschool education program was a major achievement. The elements of a cost-effective educational delivery system for young handicapped children and their parents are detailed below.

Recruiting

In order to secure a pool of high risk preschool children, a mass media effort was initiated. By radio and television spot advertisements and interviews, by newspaper articles and agency newsletters, parents were alerted to the potential services Project FEATT offered. Parents with severely or multiply handicapped children were asked to contact FEATT offices. Such a contact initiated the screening and selection procedure.

Screening

Once a child was placed on a list of potential service families, Project staff initiated an extensive screening and assessment battery. Beginning first with a physician's release, stating that the child was able to participate in the activities, Project assessment personnel visited the home. This initial screening visit permitted the staff to explain the educational programming in detail to the parents and family of the handicapped child. At that same time, the staff completed preliminary screening of the handicapped child using the Denver Developmental

Screening Test (DDST). If the child was developmentally appropriate for the FEATT tasks, a more detailed developmental assessment, the FEATT checklist, was administered. This checklist assessed readiness skills for the 57 developmental tasks to be produced under the contract. Only if the results of the medical and diagnostic assessment indicated that the child would benefit from Project involvement was he selected to participate.

Fifty families from northwest Indiana participated in the Project. These families were located in four service areas:

(1) Lafayette and Tippecanoe County;

(2) Gary-Hammond;

(3) Greater metropolitan Indianapolis; and

(4) Kokomo and adjacent communities

Delivery of Services

In September, 1975, Project FEATT began the delivery of individualized educational programming for each child. Based on assessment checklists, a list of training tasks were drawn up for each child. These tasks were chosen for each child based on his readiness skills. Only programs that were developmentally appropriate were sent to subject families.

Orientation In September, 1976, Project parents were invited to attend a two day orientation session held on the Purdue University campus. This session served several purposes:

1. It provided an opportunity to train parents in the use of televised instruction.

2. Parents were afforded an opportunity to meet all professional staff and observe the mechanics of television production.

3. Parents were able to meet other families participating in the Project and to exchange ideas and share concerns.

The reaction to this experience was uniformly positive. This type of orientation session is deemed by the staff to be a significant part of any educational program. Its partnership building values are extremely important.

Parental Training As each program was broadcast into the home, parents were asked to view the task sequence at home. Carefully structured video programming was employed to teach parents significant facilitative behaviors. In addition to televised programming, parents were given an illustrated reference guide which pictorially demonstrated each behavioral sequence that parents were to employ in order to facilitate the child's acquisition of a new critical skill. A log was maintained by parents, indicating whether or not the broadcasted program was viewed, the number of times parents practiced the new skill with their handicapped child, and the degree of relative success at each trial.

Home Visits Assessment personnel made regular bi-weekly home visits to each of the Project families. Lasting approximately one to one and a half hours, these visits provided the parents with an opportunity to demonstrate training techniques, to ask questions regarding their child's task progress, and to watch trained personnel walk through training behaviors with their handicapped child. Moreover,

assessment personnel updated the child's developmental progress, providing direction for future programming.

Parents were asked to work with their child in the presence of the home visitor. Such observation was useful in checking-off parental facilitating behaviors presented in the programs. In many cases, reteaching followed.

Probably of singular importance was the time parents could spend talking about the progress and activities the child had undertaken during the preceding fornight. As willing listeners, the assessment personnel became an integral part of the handicapped child's life and a colleague to his parents. Such a transactional exchange was even further encouraged by the "hotline." Parents were encouraged to call FEATT offices, free of charge, to discuss any child related topics with assessment team members.

Liaison With Community Agencies

Agency referrals accounted for a great many subject families in the demonstration population. Therefore, it was important to continue close communication about children and the progress of the Project.

Project staff devoted much time and effort visiting community agencies. On occasion, such visits were purely public relations - explaining Project FEATT and its service potential. When a child was an agency referral, efforts to maintain close contact were intensified. It was necessary to communicate programmatic direction for each child to affirm the congruent direction of the Project's and the agency's intervention. The child's benefit was the major consideration in the choice of programs and procedures.

CREATING THE FEATT PROGRAMS

The heart of what FEATT was all about was the production of high quality television programs to assist the parents of handicapped children teach their young handicapped children the critical survival tasks that are necessary if the child is to become a functional member of society. During the first quarter of the Project's existence from July 1, 1974, through September 30, 1974, the Project staff devoted considerable attention to analyzing the specific behavorial task which are normally expected of children under the age of three years. Following a careful review of the existing child development literature and considerable consultation with experts an initial list of some 325 distinct and separate tasks was compiled. Following this review, it was decided to concentrate on the first two years of life. A panel of consultants including both professionals and parents was then convened to review this list in order to determine which 80 of the 325 were the most important. Eighty was originally selected as the appropriate target number of programs since it was felt that this was the most that the Project could produce within a two year time span. It was determined that the list of tasks should proceed from the earliest developmental needs up to the older age. Typically special educators have worked backward toward birth rather than beginning at birth. It was the philosophy of this Project that we should begin as early as possible in order to maximize the child's life chances. After the 80 tasks were chosen they were subjected to continuous scrutiny and went through a winnowing process. Some tasks were eliminated, some were combined, and some tasks were expanded to cover more than one program. The final list of critical or survival tasks include some 57 different tasks which

children should master up to about age two (Table 6). These 57 tasks comprise the basis for the FEATT programs and represent all of the content originally envisioned for inclusion in the 80 programs.

The programs themselves include content in the areas of motor development, language development, and socialization or self-help skills. Although the programs are roughly sequenced within these three areas they represent major events or tasks in a child's life space rather than a step by step progression within a developmental area. It should be pointed out that some of the programs cover many separate subtasks and a fairly large time span developmentally, so that indeed one program might suffice for training in one area for several weeks at least. Some tasks which were deemed to be critical were not made the subject of a video program because there seemed to be considerable feeling that teaching such tasks might be hazardous to the child without professional supervision. Where this concern was voiced, the Project Staff determined that it would be wise not to produce a program on this activity. The strategies and techniques presented represent consensus on what is good practice rather than reflecting any particular point of view.

Each program is designed to include a clear specification of the task, the prerequisites for the task, a task analysis, procedures for assessing a child's readiness in terms of the prerequisites and one or more teaching strategies. The content of the programs was derived from principles of behavior modification, modeling, and guided instruction. The total effort was to make the programming relevant to both the parent and the child. Therefore, the instruction is directed primarily toward the parent. Each program includes visual sequences showing both

professionals working with the child and parents working with the child. Some modification of this general strategy was made when it was deemed appropriate. The average program length is from 15 minutes to 29 minutes and 30 seconds. Considerable discussion was given to adopting a standard program length. However, since television professionals did not seem to consider the issue to be important, and since adopting a standard program length would have required considerable padding, it was determined to use the nonstandard program length to maintain good pacing.

As noted above, Table 6 includes the titles of the 57 programs along with a brief description of the programs that have been completed prior to 30 June 1976. Descriptors for the balance of the programs will be available on or about September 1, 1976.

Script Development

To insure quality and some uniformity the Project FEATT program development staff utilized a fairly structured script development procedure. The staff developed the scripts based on the list of 57 tasks selected for production. A content outline was developed by a staff member in consultation with one or more consultants and parents. This content outline formed the basis for the writing of the script. The scripts themselves were generally prepared by people who had had previous experience in writing television scripts.

The rough content script was written in one-on-one language appropriate for the audience viewing the tapes. The script included a narrative description of each trainer - child interaction, with a corresponding mini TV script. The interaction was spelled out in

TABLE 6

FEATT CRITICAL TASKS AND PROGRAM DESCRIPTIONS[1]

1. From Kneeling to Standing

Parents are shown how to teach their child to go from his knees to a standing position by pulling himself up on a piece of low furniture. They are shown how to help the child position his legs and hands correctly, pull one leg up under him, and then push up with that leg while pulling with his hands. The pre-requisites are that the child be able to stand with support and hold onto things and pull. (This is the only program in the series which is not available in color.)

2. Walking

This program presents methods of teaching a child to walk with support. In this first method, the child uses a chair for support and begins to take steps as the parents move the chair slowly across the floor. In the second the child holds onto the parent's hands. The third method teaches cruising along a couch or other piece of furniture. The pre-requisites are that the child be able to pull himself to standing and stay standing for a short time.

3. Stimulating Your Child's Sense of Touch

Activities are shown to expose the child to a variety of textures in order to widen his experience and avoid oversensitization. The activities which are suggested are a body rub with lotion, rubbing objects with different textures against the child's skin, and dipping the child's hands and feet into containers filled with different substances. Special methods are demonstrated for seizure-prone children. The program is appropriate for most ages and developmental levels.

4. Crawling

Methods are shown for parents to assist their child in learning to crawl on his hands and knees. (The commonly-understood term "crawling" is used rather than the technical term "creeping.") The pattern of crawling is emphasized, and parents are shown how to give progressively less assistance as the child improves. The pre-requisite is that the child be able to assume and maintain a hands-and-knees position.

5. Finger Feeding

Parents are shown how to teach their child to finger feed in three steps. First, the food is placed in the child's mouth so that the child can taste and chew it. Next, the food is placed in the child's hand and the child puts it in his mouth. Finally, the food is placed on the child's tray and the child picks it up and puts it in his mouth. The pre-requisites are that the child can sit with support, reach, grasp, and release.

6. Stacking

Activities are shown to teach a child to stack things on top of each other. The three activities are taking the rings off of a stacking ring, putting the rings back

TABLE 6 Cont'd

on, and stacking two blocks. Homemade stacking toys are also shown. The pre-requisites are that the child be able to reach, grasp, and release objects.

7. Over, Under, Around, and Through

The development of body awareness is taught through the use of an obstacle course that requires the child to move over, under, around, and through objects. Parents are given ideas for how the course may be constructed and some hints on how to encourage their child to keep moving through the course. The pre-requisite for this program is that the child be able to creep on all fours or crawl on his stomach.

8. Taking Socks Off

Parents are shown how to teach their child to take his socks off. Chaining procedures are used with the task which is broken down into four steps: pulling the sock off of the toes, pulling it off the whole length of the foot, pulling it over the heel, and taking it off alone. The pre-requisites are that the child can sit with support, reach and grasp, and get his legs in a position where he can reach his feet.

9. Drinking I

This program and Drinking II present the procedure for teaching a child to drink independently. This program shows parents how to teach their child the first step in learning to drink from a cup, which is getting the feel of putting his mouth around the rim of the cup and drinking from it. Types of training cups and reasons for using each type are also presented. The pre-requisites for the program are that the child be able to sit with support, reach and grasp, and have enough mouth control to retain a mouthful of liquid and swallow it.

10. Imitating

Parents are shown some activities or games to encourage their child to imitate. Playing pat-a-cake, shaking a rattle, and waving are the main activities shown in the tape. Basic guidelines for teaching a child to imitate any motor activity are given, however. The pre-requisites for these activities are that the child has controlled arm movements and, for some activities, the child must be able to reach and grasp.

11. Drinking II

This program and Drinking I present the procedure for teaching a child to drink independently. This program shows parents how to teach their child to hold onto a cup, how to pick it up, and finally how to put it back down when he is finished. The pre-requisites are that the child be able to sit with support, reach and grasp, and take a drink from a cup and swallow it when the parent holds the cup.

TABLE 6 Cont'd

12. Frolic Play

Parents are shown how to work with their child to help him experience motion while his body is in different positions. Bouncing him on the knees, pulling him around in a box, and rolling him across the floor are some of the activities demonstrated. Although there are no pre-requisites for this tape, the activities must be geared to the individual child's level of ability.

13. Taking Shoes Off I

In this program and "Taking Shoes Off II," the task of taking off shoes is divided into six steps, the first two being covered in this tape. These two steps - pulling the shoe off the heel and pull it off the toes - are taught using shaping and chaining procedures. The pre-requisites are that the child can reach and grasp, can sit with support, and has enough control over his legs to get them in a position where he can reach his feet.

14. Using Both Hands Together

Activities are shown to encourage the child to use both hands to hold and manipulate objects. A variety of toys that require two hands are demonstrated, such as large toys or toys that require both hands to pull apart, put together, squeeze, or hit together. The pre-requisites are that the child be able to reach and grasp.

15. Rocking on Hands and Knees

Parents are shown how to teach their child to rock on his hands and knees in preparation for crawling. The first activity shows the parent how to get the child into the correct hands-and-knees position. The second activity demonstrates how to rock the child back and forth on his hands and knees. A special approach is shown for a child who cries and is resistant. The pre-requisites are that the child has good prone head control and can bear weight on his hands.

16. Playing With Toys

Parents are given ideas about how to structure their child's play with toys in order to stimulate his cognitive development. The concepts of permanence, causality, and judgement are dealt with most directly. Activities are shown for children at various levels, and the ideas are appropriate to a wide age range.

17. Head Control When Pulled to Sitting

Activities are shown to help the child strengthen the neck muscles which are used when he is pulled to sitting. Three separate approaches are shown for children with varying amounts of head control, each approach providing the child with only as much support as is necessary. A two person technique which is appropriate for any level is also demonstrated. The tape is useful for any child who has not already acquired the skill. (no pre-requisites)

TABLE 6 Cont'd

18. Looking

Activities are shown to assist children in strengthening their eye muscles and to use their eyes more effectively. The first exercises teach the child to look at an object in front of them and to either side. Additional exercises teach the child to track a moving object. The only pre-requisite is that the child should have functional vision.

19. Reinforcing Your Child's Language

Parents are taught how to respond to their child to encourage further vocalization. When the child says a word or makes sounds, parents are shown how to respond by repeating their child's word, praising the child by smiling and touching him. The techniques are demonstrated with children who are babbling, using single words, and beginning to combine words. There are no pre-requisites.

20. Learning to Sit Up

Activities are shown to teach a child to sit up from the following three positions on the floor: prone, supine, and on hands and knees. The pre-requisites include sitting without support and bearing weight on hands with arms fully extended. This program is not recommended for children with severe spasticity.

21. Holding On To Objects

Activities are shown to teach parents how to work with their child on grasping. The first activities teach the palmer grasp. Then activities are shown to teach the pincer grasp. The pre-requisite for the activities teaching the palmer grasp is that the child be able to reach. To learn the pincer grasp, the child should first master the palmer grasp.

22. Standing Without Support

Activities are shown to teach a child to stand with progressively less support. At first, the child is taught to stand next to a low table. Then the child is held from behind and given less and less support. The pre-requisites are that the child be able to pull himself to standing and get back down from a standing position on his own.

23. Lifting and Carrying Your Child

Methods are shown for properly lifting and carrying a child in ways which are safe for the adult's back, which keep the child secure, and which control his abnormal movement patterns. Three carrying positions are demonstrated: the cradle position, the straddle position, and the front position. Appropriate lifting techniques are presented for each carrying position. Variations of the carrying positions to accommodate the child's size, strength, or disabilities are also shown or described. There are no pre-requisites.

TABLE 6 Cont'd

24. Rolling From Back to Stomach

A method is shown to help a child learn to roll from back to stomach. One additional step is shown for helping him learn to pull his arm out from underneath his chest after he rolls over. The pre-requisites are that he be able to turn his head from side to side when prone, bring at least one arm across his chest, and kick reciprocally.

25. Rolling From Stomach to Back

Two methods are shown to help a child learn to roll from stomach to back. One method requires one person, the other method requires two people. The pre-requisite is that the child should be able to push up on forearms when prone and maintain that postion for a short time.

26. Eating With a Spoon I

This program along with Eating With a Spoon II presents a procedure involving five steps for teaching a child to eat with a spoon. In this program, the first two steps are demonstrated. These are: 1) teaching the child to look at the bowl, the food, and the spoon before getting a bite, and 2) helping him to hold the spoon while guiding him through the eating process. Hints on how to buy or adapt a spoon, what kind of bowl to use, what kind of food is good, and how to handle behavior problems are also provided. The pre-requisite for the first step is that the child should be able to focus on an object for several seconds. For the second step, the child should be able to grasp a spoon (with palm band if necessary), have a hand-to-mouth pattern, and be able to eat soft food from a spoon without choking.

27. Reaching

Activities are shown to encourage the child to reach for specific objects. The first technique deals with teaching a child to "bat" at a noisy, dangling toy. There are no pre-requisites for this activity. The second activity demonstrates a technique for teaching a child to reach out and make contact with a toy. The pre-requisite for this activity is that the child should be able to "bat" at a toy.

28. Expanding Your Child's Language

This program demonstrates techniques for expanding the child's utterances by adding words. Techniques are presented for expanding from the one-word level to the two-word level, from the level of combining simple words to slightly more complex structures, and from phrases and simple sentences to sentences including the finer points of language. The program is appropriate for any child who is at least approximating words.

29. Correcting Your Child's Language

The three common mistakes that children make while learning to talk are demonstrated,

TABLE 6 Cont'd

followed by recommended methods for correcting the child. These mistakes include mispronunciation, wrong word order, and using the wrong word. The program is appropriate for use with any child who is at least approximating words.

30. Listening

This program deals with encouraging a child to respond to sounds. The first activity involves exposing the child to many types of sounds and encouraging him to respond in any way. The following activities help a child learn to turn to the side to find the source of a sound. Additionally, general suggestions are made as to the best time and place to work on training activities with a child.

31. Teaching Words - Objects

There are two steps presented in this program. The first step involves teaching a child to understand the meaning of an object word, and the second step teaches the child to say the word himself. The first step can be used alone and is appropriate for a child at any stage of language development. The second step is appropriate for any child who is at least approximating words.

32. Teaching Words - Actions

There are two steps presented in this program. The first step involves teaching the child to understand the meaning of the action by helping him to perform the action when he hears the word, and the second step teaches the child to say the word himself. The first step can be used alone and is appropriate for a child at any stage of language development. The second step is appropriate for any child who is at least approximating words.

33. Talking to Your Child

This program explains in detail six basic rules and several general techniques to use when talking to a young child. These rules and techniques encourage optimal opportunity for a child to use visual, auditory, and tactile cues to learn to understand and use language. These techniques are appropriate for use with any young child.

34. Letting Go of Objects I

Parents are shown how to begin working with their child on a controlled and directed release. The first activity shown is a warm-up exercise which involves opening and closing the hands. For teaching the actual release, the activity used is dropping an object into a container. The pre-requisites are that a child be able to reach and grasp.

TABLE 6 Cont'd

35. Letting Go of Objects II

Parents are shown how to help their child improve on his ability to control and direct his release. In the first activity, he learns to let go of a block on a piece of paper. The second activity utilizes a toy which requires the child to put "people" in a slot. Other materials which will help a child develop a more precise release are reviewed. The pre-requisite is that a child be able to drop an object into a container.

36. Crossing the Midline

Activities are shown to teach the child to reach across the midline with either hand. The first activity involves crossing the midline to pull a piece of tape off of the opposite side of the body. The next two suggested techniques work on grasping and releasing while crossing the midline. Several activities to be used throughout the day are also demonstrated. The pre-requisites are that the child be able to reach and grasp.

37. Crawling on the Stomach

A method is shown to teach a child the movements for belly crawling. The reciprocal pattern is stressed as parents are shown how to give progressively less help. The pre-requisites for this activity are that the child be able to push up on forearms and be able to kick his legs reciprocally.

38. Pushing Up On Arms I

This program demonstrates two techniques for teaching a child to push up on extended arms. The first technique involves the use of a towel roll to support the child's chest. In the second activity, the child's chest is positioned over the parent's leg. The pre-requisite is that the child be able to push up and maintain the position of bearing weight on forearms.

39. Pushing Up On Arms II

This program demonstrates the use of special equipment for teaching the child to push up on extended arms. The first activity involves the use of a beach ball or cylinder. For the second activity, parents are taught how to construct and use an inclined plane made from a cardboard box. The pre-requisite is that the child be able to push up and maintain the position of bearing weight on forearms.

40. Taking Shoes Off II

This tape is a sequel to "Taking Shoes Off I," however, the tapes can be used independently. In the two tapes the task of taking off shoes is divided into six steps, the last four being covered in this tape. These four steps -- untying the bow, uncrossing the laces, pulling the laces from the eyelets, and pulling the sides of the shoe apart -- are taught using backward chaining procedures. The pre-requisite for this tape is that the child must be able to pull his shoe off his heel and toes after the sides of the shoe have been pulled apart for him.

TABLE 6 Cont'd

41. Eating With a Spoon II
42. Walking on Knees
43. Hands to Midline
44. Positioning Your Child I
45. Positioning Your Child II
46. Standing on Knees
47. Pushing Up on Forearms
48. Teaching "No" "Stop" and "Don't"
49. Turning Head
50. Sitting I
51. Sitting II
52. Paying Attention
53. Teaching Imitation: Language
54. Following Simple Instructions
55. Head Control When Lying on the Stomach
56. Head Control When Upright
57. Exercise For the Legs

[1]Program descriptions for programs still in production will be available after September 1, 1976.

sufficient detail so that the taping of inserts could proceed, prior to the completion of the final script. The scripts had to specify the particular things which must be seen or said at any particular time in the trainer-child interaction. The rough script did not deal with production techniques per se. After the rough script was reviewed by the Program Development Manager it was then sent to appropriate consultants for review and feedback. The consultants were both professionals and parents. This review constituted a validation or process evaluation of the content before any production began.

After the rough script was reviewed a final script was completed which was basically a reworked, modified revision of the rough script. This script contained the word-for-word verbalization made by the program host, Roger Frazier. The head script writer, Sally Coffman, was responsible for the preparation of this final content script. When the final script was completed the program development staff then met with the production staff to develop the rough television production script.

Program Production

The television professionals and the special education professionals worked cooperatively to construct the TV script. The components of the TV script that were added at this stage were essentially the video specifics and machanics. It was necessary to decide whether the production would be done in studio or in a remote location and whether it would be taped or filmed. Once this decision had been made it was necessary to develop a floor plan, a movement plan, and a light plot. Another important or critical element was shot selection, including shots

of movement by talent, the description of the appropriate gestures, the specification of close-ups including specific body parts that were to be viewed. Special effects were specified; e.g., slow motion, stop action, stills, fast action, etc. Also, the materials slide and accompanying audio were designed at this time.

The video sequences showing trainers, parents, and children were essentially inserts which were later edited into the finished program. The production of these inserts included five specific areas of activity:

1. Scheduling needed personnel and facilities including:
   a. The Telecommunication Center Studio and personnel,
   b. Audio Visual Center film area,
   c. Still photographer,
   d. The graphic artist, as needed
2. Actual taping of the insert
3. Reviewing the tapes to determine their acceptability. At this point it was determined whether to accept the tape or to reschedule the production. It is not uncommon in television to shoot ten minutes of tape for every minute of tape that is finally used. Project FEATT achieved a remarkable ratio. In the last quarter of the two year project the production ratio was down to 1.5 to 1.
4. After accepting an insert the insert is edited to improve its quality.
5. The insert is then dubbed to "sequential tape" for final program production.

Following completion of all the necessary insert production, graphics, and other visuals the final program was scheduled for production. Prior to taping there was a rehearsal period usually three hours in length,

divided between nonstudio rehearsal and instudio rehearsal. Following this rehearsal the program host was taped and the inserts mechanically edited in. After each program was produced there was an immediate review of the finished product to determine its acceptability. When the program was accepted the producer/director edited the program to attach the necessary music, introductory slides, and credits. On rare occasions it has been necessary to schedule a remake. These remakes were necessitated primarily due to the fact that the FEATT programs were demanding more out of the Telecommunication Center equipment than it was designed for. Table 7 includes data on the production output during the Project's two year life. Production time was actually 594 hours (Table 8). In addition to production of video materials, a large number of visuals were produced to enhance the finished product (Table 9).

TABLE 7

PRODUCTION OUTPUT, July 1, 1974 - June 30, 1976

Handouts completed by June 30	28
Handouts completed by August 31	57
Number of inserts taped by June 30	525
Number of individual "takes" by June 30	888
Number of programs completed by June 30	41

TABLE 8

PRODUCTION OUTPUTS BY CALENDAR QUARTERS
(in hours)

	Inserts	Host
July-September 1974	0	0
October-December 1974	16	16
January-March 1975	40	0
April-June 1975	80	8
July-September 1975	80	56
October-December 1975	28	40
January-March 1976	104	16
April-June 1976	46	64
Total Studio Hours For Inserts	394	
Total Studio Hours for Host		200

TABLE 9

VISUALS USED IN PRODUCTION OF FEATT PROGRAMS

TOTAL: FILMS 79 PHOTOS 21 SLIDES 85 GRAPHICS 89

Script No.	Films	Photos	Slides	Graphics
1	0	0	0	1
2	4	2	0	0
3	0	0	0	0
4	0	1	7	0
7	4	5	0	0
8	1	0	0	4
9	0	0	0	0
10	3	0	3	0
12	0	0	6	0
13	1	0	0	6
14	4	0	0	0
15	5	0	0	6
17	2	0	0	1
18	1	0	5	0
19	0	0	0	0
20	0	0	0	4
21	0	0	0	0
22	0	1	13	0
23	0	0	0	0
24	0	0	0	0
25	0	0	4	1
26	6	0	5	0
27	0	4	4	0
28	2	1	0	2
29	1	0	0	0
30	0	0	0	2
31	1	0	0	3
32	0	0	0	0
33	0	0	3	2
34	4	0	0	1
35	1	0	0	0
36	1	0	0	3
37	1	0	4	0
38	5	0	0	4
39	1	3	0	0
41	2	0	0	0
42	2	0	5	0
43	0	0	0	2
44	0	0	0	4
45	5	0	2	6
46	1	0	0	3
48	6	0	0	0
49	1	0	0	0
50	1	0	0	6
51	0	0	10	7
54	1	0	4	2
59	1	0	0	4

TABLE 9 Cont'd

VISUALS USED IN PRODUCTION OF FEATT PROGRAMS

cript No.	Films	Photos	Slides	Graphics
60	1	0	0	0
61	1	1	10	2
64	1	0	0	0
65	0	0	0	0
68	1	0	0	1
70	4	0	0	0
71	1	0	0	0
76	1	0	0	3
77	1	3	0	6
78	0	0	0	3
Totals	79	21	85	89

REACHING OUT

A major aspect of Project FEATT was the delivery of programming to the families of handicapped children. Television offers a flexible, more immediate approach to the delivery of programming for parents of handicapped children than a weekly or biweekly visit by a professional child worker. However, the question of access or the choice of delivery system presents an interesting problem. The state of the art suggests that there are four major ways of delivering televised instruction to parents, (1) public television (ETV), closed circuit television or instructional television fixed service (ITFS), (3) cable television (CATV), and (4) home videotape player. Each of these approaches offers some advantages and each has some limitations. The Project staff carefully considered each of the systems before making a choice of the delivery modes.

Educational television generally provides a better signal for a wider area and a greater population. This makes it extremely desirable for a mass audience. The major problems in using educational television included the limited access since you would have to compete with many other potential users for time on the station. This also made the programming time fairly inflexible. In addition televised instruction using ETV would have to be non-prime time periods. Another consideration, which educational television managers usually take into account, is the total potential viewing audience at any one time.

The instructional television fixed service (ITFS) or closed circuit system operates usually on the 2500 Mhz broadcast band. Access to this system is usually through means of a down convertor which insures

privacy. Where such a system exists there is the advantage of better scheduling since there is usually less competition on such closed circuit systems. The disadvantages of the ITFS system are several. A primary consideration is the location of homes in relation to the transmitter. The normal range of a ITFS signal is 5 to 10 miles. In the Project FEATT areas most of the homes were beyond this normal range. A second major problem encountered and which might be anticipated for similar efforts was the logistics of erecting the reception equipment at the residences of the receiving families. It would have been necessary to install poles and special disc antennae to receive the signal. This type of installation raised questions of liability and permits. In Lake County for example there are over 100 separate agencies with jurisdiction. Sorting out these problems would have been to say the least extremely difficult. Since Project FEATT was plowing new ground in this area the real time available for solving these problems was limited. Another major problem encountered was the basic cost of equipment. The average cost of an ITFS installation appeared to be in the neighborhood of $1500. ITFS did not appear to be cost beneficial when compared with alternative delivery systems. In Indiana another problem was the limited access to families due to the necessity of time sharing. Indiana's medical education program makes heavy use of the ITFS system as do other continuing education efforts of the state's major universities.

The third option for delivery of programs is the use of an empty cable television channel. This system goes quite a way toward insuring privacy. The major problem is the availability of an open channel. Another major problem is that cable television is still quite limited

throughout the United States. However, where such a system is extant it offers an attractive option. Most cable companies have a number of mid-band channels which could be used for the delivery of televised instruction. To access these channels it would be necessary to provide the consumers with a mid-band convertor. The cost of such convertors is, however, relatively small. An intriguing option which the project did not try was to set up a dial access operation with a local cable company. This would seem to give considerable flexibility at a relatively low cost. It is the hope of the Project FEATT staff that there will be an opportunity in the near future to try out this approach.

One of the most attractive delivery alternatives currently available is the use of the home video player. Players currently on the market are easy to operate and are quite durable. The cost of such a unit placed in a home is less than one dollar per day when ammortized over the number of days it would be used in any one year and over the anticipated life of the instrument. The use of the home video player brings great flexibility in programming since families can play the programs many times over and can play them at times that are most convenient to them. This system also tends to increase the likelihood that male parents will participate more frequently and with greater interest in the education of their young children since they can play the programs during their off working hours. All Indiana families not having cassette players looked with great longing at those who did have them. During the entire ten month program delivery period less than ten service calls were made, and, in only one instance, was it necessary to bring a set to the shop for repair. Project FEATT utilized 36 video cassette players and provided many, many hours of

programming on these players. Therefore, the durability of the machines appeared to be remarkable. The major problems encountered were primarily the liability risks, in terms of theft and damage, and the lack of an immediate interaction.

The Project was designed to test the feasibility of a two-way or interactive television delivery service. To secure this interaction it was necessary to use telephonic communication inward or inbound. The essential delivery system settled on finally was the use of cable television in Lafayette and Kokomo and the placement of video tape recorders in Indianapolis, Lake County, and all outlying areas. The interactive system was established using a collect call-in method. When parents called collect, the telephone operator provided a credit card number, or a billing number, for the telephone company operator. Then the parents were connected to the party they were calling.

FEATT Programming

There was actually 33 weeks of programming provided for the 50 demonstration families. The statistics on the amount of programming are shown in Table 10. Some 1562 different programs were scheduled during the 33 week period. It is of interest that the average number of tapes scheduled for each child was 21 with the range being from 14 to 26. The total number of hours that were utilized on CATV was 127. The basic structure of cable television utilization was to provide one program during the first half hour which was followed by an interactive period ranging from 10 to 30 minutes depending on the parent participation. Parents were invited to call in during this live interaction part to the studio, ask questions, make suggestions,

TABLE 10

DATA ON DELIVERY OF TELEVISED INSTRUCTION

Total number of programs scheduled	1,562
Average number of <u>different</u> tapes scheduled for each child during 33 weeks of programming	21.4
Maximum number of different tapes scheduled for each child	26.0
Minimum number of different tapes scheduled for each child	14.0
Total number of hours utilized via CATV	127
Average number of home visits to each family	14.8

or raise other points of information. It is the judgement of the staff that had there been more time, more personnel, and more money, greater utilization of the interactive period could have been made. Parents, in general, tended not to avail themselves of the interactive opportunity. The Project home visitors attempted to ascertain the reasons for this failure to utilize the interactive system. The response was that the programs were so detailed and so clear that they had very few questions. Another possibility was that parents did not care to call in on what was essentially a talk show format. They might have been more willing to utilize the system had there been greater privacy. However, they made little use of the hot-line systems which was manned during all normal working hours. Throughout the duration of the Project they appeared to have few problems which needed immediate resolution. The future of interactive television appears to rest in the establishment of two-way video communication as well as two-way audio communication. Two-way video communication in the current state of the art will require the existence of a cable television system which uses dual-coaxial cable. While some of these systems exist around the country, they are not widespread. Predictions of when such dual-coaxial capability will be widely available have never been very reliable.

While it is very easy to gather statistics on transmission, it is much more difficult to gather statistics on viewing. Several times during the Project, Project staff set up procedures for sampling the viewing habits of the participating families. Based on this limited data the staff determined that it was quite probable that the families watched the Project FEATT programs quite regularly. Indeed the parents reported that they watched many programs other than the ones scheduled

for each family during a particular time period. The interest of the families seemed to continue for the entire duration of the Project. The fatigue factor which might be noted in a number of home based programs did not appear to be as marked using television programming.

TELLING THE FEATT STORY

Many good projects fail at the crucial task of disseminating information about their efforts. Project FEATT devoted considerable effort to dissemination. Under the leadership of the Public Information Officer, all FEATT staff played a public relations role. The public information office handled most written and verbal requests for information from external persons and organizations. The Public Information Officer edited a newsletter that is published quarterly and has a national circulation of approximately 2500. Many presentations to local, state, or national organizations were made by the public information staff. The public information office was also responsible for arranging on-site visits to the Project and for organizing parent workshops.

All Project staff had a significant role in FEATT's public relations component. This was a critical factor in a productive public relation program. For a project of FEATT's size, the public relations program was very effective. There were several additional factors that have contributed to its success.

One such factor was a dual projection, audio controlled, slide show. This 12 minute presentation consided of over 125 slides which effectively described the Project in an interesting and informative manner. Catchy background music along with an accomplished narrator hi-light a well planned script.

Quality brochures and newsletters were another integral part of FEATT's public relations activities. There were two brochures, one being of a technical nature and the other being more general. The purpose of each brochure was to give a quick but thorough overview of the Project.

Therefore, a considerable amount of planning was needed to insure readability and an attractive, eye-catching appearance. One of the brochures employed photos to communicate most of the information to the reader.

There have been seven editions of the Project's newsletter entitled, "FEATT Forward." Each issue has provided the reader with relevant news and information. One necessity for the newsletter was a well-trained photographer to secure needed photos. A layout is always more appealing with pictures, diagrams, illustrations or other art work. The recurring columns, i.e. spotlight, news and notes, etc. added some consistency between issues. All articles were written in an attempt to avoid wordiness and too much technical jargon. The titles of articles were aimed at attracting the reader's attention but not misleading. On the average each newsletter required a month's preparation.

Project presentations generally consisted of a brief introduction, the slide show, previewing one or two video programs, and then time for questions. A general presentation policy which has been found to be effective focused upon a multi-media philosophy. The less spoken word, the better!

Visitations to the Project by external organizations and individuals were always carefully planned according to individual visitor needs. Staff members might dine with project visitors as well as offer assistance such as rides to and from the airport, hotel, office, and answering questions about their respective role in the Project.

Public Relations with Project parents has been an on-going activity from the beginning. Those parents involved in the talent pool have received 8 x 10 color photos of their studio days as well as reimbursement for travel and meals. All parents can generally find a warm smile

or an understanding word when talking with any staff member.

To have an effective public relation program a main ingredient is belief in what you're doing. A public relation person who is confident in himself and his role is a start. Also needed, however, is a staff that genuinely believes a public relation program is important and is willing to take an active part in that program. A summary of dissemination activities is shown in Table 11.

TABLE 11

DISSEMINATION ACTIVITIES

Distribution of Materials	Number Distributed	Totals
A) Newsletters		
Nov., 1974 - Number 1	2821	
Jan., 1975 2	2415	
March, 1975 3	3000	
June, 1975 4	3000	
Sept., 1975 5	3405	
Dec., 1975 6	3200	
April, 1976 7	3000	20,841
B) Brochures		
1st edition	3250	
2nd edition	3400	
		6,650
C) Activity Guides (Since Oct. 1975)		
Parents	722	
Other	127	
		849
D) Preview tapes (Since Oct. 1975)	372	
		373

Direct Dissemination of Information	Number	Totals
A) Presentations outside office		
Local	15	
State	5	
National	30	
		50
B) Presentations made to on-side Project visitors	14	
		14

Indirect Dissemination of Information	Number	Totals
A) Public Service Announement		
TV	13	
Radio	34	
		47

(continued next pp

2

Table 11 (contd)

Indirect Dissemination of Information	Number	Totals
B) News Releases		
TB	22	
Campus publications	7	
		29
C) Television Appearances	3	
		3
D) Articles		
Newspaper	10	
Magazine		
Major	1	
Minor	5	
Other newsletters	not known	
		79

THE EFFICACY OF FEATT PROGRAMMING

The Project FEATT programs have been subjected to an extensive formative and summative evaluation (FEATT Technical Report, in press). The evaluation was national in scope and included the collection and analysis of the following data:

(1) The series' effect on knowledges of child development and child training procedures.

(2) Parents' ability to employ the demonstrated skills.

(3) Viewers' reaction to the programming.

Cognitive Measures

Six randomly chosen programs were selected for nationwide viewing in five locations (see Table 12). For each program, a 10-item, true-false questionnaire was constructed which reflected both the fundamental developmental information as well as the appropriate training strategies. Six hundred and forty seven subjects viewed these six programs. After analyzing the data for possible contamination due to occupation, ethnicity, or regional area, it was determined that significant information had been passed to the viewers as a result of the programs. Utilizing a pretest- posttest design, all measures of cognitive information showed a significant, $P < .005$, increase in corrected score from pretest to posttest occasion (see Table 13). While some of that change was directly attributable to repeated measures, the highly significant results would indicate less than 3% chance of a false positive result. Therefore, the training programs were conveying developmental and training information to the viewer very effectively.

TABLE 12

NATIONAL SURVEY

Population Breakdown

LOCATION	RESPONSE N	ETHNIC ORIGIN		OCCUPATION		TAPE N	
Richmond, VA	324	A. White	213	A. Pre-Service	111	A. Walking	64
		B. Black	25	B. Paraprofess.	7	B. Crawling	59
		C. No. Info	86	C. Professional	76	C. Stacking	62
				D. Parent of Handi.	111	D. Drinking II	74
				E. Parent	18	E. Shoes Off I	60
				F. No Info.	1		
Wassaic, NY	57	A. White	42	A. Pre-Service	7	A. Walking	12
		B. Other	2	B. Paraprofess.	6	B. Crawling	12
		C. No Info	13	C. Professional	44	C. Stacking	5
				D. Parent of Hand.	0	D. Drinking II	14
				E. Parent	0	E. Shoes Off I	14
Syracuse, NY	67	A. White	67	A. Pre-Service	14	A. Walking	13
				B. Paraprofess.	0	B. Crawling	13
				C. Professional	8	C. Drinking II	15
				D. Parent of Handi.	24	D. Shoes Off I	13
				E. Parent	9	E. Shoes Off I	13

TABLE 12 (Contd)

National Survey

Population Breakdown

LOCATION	RESPONSE N	ETHNIC ORIGIN		OCCUPATION		TAPE N	
Logan, UT	63	A. White	63	A. Pre-Service	12	A. Walking	22
				B. Paraprofess.	0	B. Crawling	19
				C. Professional	28	C. Stacking	11
				D. Parent of Handi.	19	D. Drinking 11	5
				E. Parent	0	E. Shoes Off I	6
Albuquerque, NM	96	A. White	56	A. Pre-Service	23	A. Walking	17
		B. Black		B. Paraprofess.	0	B. Crawling	17
		C. Spanish Speaking	35	C. Professional	20	C. Stacking	21
		D. Native Amer.	5	D. Parent of Handi.	34	D. Drinking II	22
				E. Parent	1	E. Shoes Off I	19
						No. Info.	18
Indiana	40	A. White	39	A. Pre-Service		A. Walking	40
		B. Black	1	B. Paraprofess.		B. Crawling	0
				C. Professional		C. Stacking	0
				D. Parent of Handi.	40	D. Drinking II	40
				E. Parent		E. Shoes Off I	40
Summary Totals	607	A. White	441	A. Pre-Service	167	A. Walking	281
		B. Black	25	B. Paraprofess.	13	B. Crawling	120
		C. Sp. Spk.	35	C. Professional	176	C. Stacking	114
		D. N. Am.	5	D. Parent of Hand.	188	D. Drinking	128
		E. Other	2	E. Parent	11	E. Shoes Off I	111
		F. No Info.	99			No Info.	18

Table 13. An Evaluation of Pretest and Posttest Content Measures

Tape Title	N	Pretest $\bar{X}$	Pretest S.D.	Pretest KR_{20}	Posttest $\bar{X}$	Posttest S.D.	Posttest KR_{20}	p
05 Crawling With Assistance	127	3.13	2.31	0.80	6.74	1.95	0.86	.005
07 Stacking	113	4.48	1.59	0.48	8.07	1.87	0.92	.005
09 Drinking II	131	3.09	2.38	0.73	6.61	2.38	0.89	.005
17 Rocking	99	3.97	2.17	0.77	8.01	2.35	0.94	.005
48 Walking	139	3.27	2.71	0.86	7.22	2.36	0.97	.005
68 Shoes Off	120	3.92	2.13	0.79	7.05	2.39	0.91	.005

Behavioral Measures

One hundred and sixty subjects were rated on the implementation of behavioral strategies with exceptional children. After having viewed four of the six training programs, parents demonstrated the training strategies depicted. In this case, because of the restrictive sample size, population characteristics (sex, ethnicity, and regionality) were held constant. Again, highly significant changes in parental training behaviors ensued, $P < .05$, the probability of spurious results being less than .08 (see Table 14).

Viewer Reaction to Programs

A 25-item forced choice questionnaire was constructed to reflect consumer response and acceptance to Project FEATT programming. Developed in a 5-point Likert scale format, a mean response of 5.0 would reflect strong agreement with a preceding statement. A mean response of 1.0 would reflect strong disagreement with a preceding statement. And a mean response of 3.0, would reflect a neutral stance.

A nationwide sample of 607 subjects responded to the questionnaire on each of the 5 training sequences (see Table 15). The lowest scores (items 11, 13, and 14), reflected a general positive statement as to the clarity and length of presentation. Item 14, suggested that the parents would like to review the program again. On the high end (items 2, 6, 7, 12, 15), viewers again were commenting on the ease of presentation acceptance and general program quality.

Overall, the viewer reactions were quite favorable, as reflected in items 22, 23, and 24. Parents did feel the tapes were of sufficient quality for national television. They were cogent, clear, and interesting.

Table 14. An Evaluation of Pretest and Posttest Behavioral Measures.

Tape Title	N	Pretest			Posttest			$p_{T_1 \cdot T_2}$
		$\bar{X}$	S.D.	KR_{20}	$\bar{X}$	S.D.	KR_{20}	
09 Drinking II	40	8.62	5.02	.78	12.76	5.53	.91	.01
17 Rocking	40	7.60	2.55	.83	8.62	4.87	.90	.05
48 Walking	40	6.48	6.31	.78	10.22	3.23	.87	.01
68 Shoes Off	40	4.22	3.54	.83	12.30	7.19	.94	.01

TABLE 15

VIEWER REACTION TO TAPES

Item	$\bar{X}$	S.D.
1. There is enough time during the program to try the activities with my child.	3.818	1.110
2. I am able to remember how to do the exercises after the program is finished.	4.535	.540
3. I felt the instructions were too repetitious.	3.727	1.086
4. I can recognize when my child is ready to learn this task.	4.263	.790
5. The program made me eager to start the training.	4.263	.803
6. The trainer seemed relaxed and confident.	4.475	.541
7. I think the program was clear and easily understood.	4.616	.489
8. There was not too much information presented in this program.	4.172	.904
9. I understand why my child needs this activity.	4.414	.769
10. I feel I do not need more information about the exercises in order to do them with my child.	3.949	1.034
11. This program was confusing.	1.224	.950
12. Seeing a trainer demonstrate the activity helps me to remember it.	4.475	.733
13. Seeing the program again would be helpful to me.	2.646	1.198
14. The program was too long.	1.282	1.024
15. The information in the program was helpful.	4.495	.595
16. I liked the way the program began.	3.909	.946
17. I liked the way the program ended.	3.979	.763
18. I liked the music used in the program.	3.778	1.026
19. The trainer made me feel relaxed and confident.	4.235	.655
20. The host seemed friendly.	4.343	.657
21. The host really made me want to teach me child.	4.000	.892
22. This program held my attention.	4.283	.655

TABLE 15 (cont'd)

VIEWER REACTION TO TAPES

Item	$\bar{X}$	S.D.
23. This program was entertaining	3.869	.877
24. The quality of this tape would make it good enough for national television.	4.121	.863
25. I will be able to find the time to work with me child during the next week.	4.327	.670
Average mean viewer reactions to FEATT Programs	4.117	----

FEATT and Other TV Programs

Evaluation of instructional television is still relatively unsophisticated; however, station managers make considerable attempts to gather information for the purpose of making decisions about which programs to purchase and broadcast one such evaluation effort was conducted by the Southern Illinois Instructional Television Association (1976).

That study was roughly comparable to the FEATT viewer reaction evaluation in that it asked teachers in Southern Illinois to rate programs broadcast by the Association. The respondents were asked to rate the "instructional value of telecourse" on the following five point scale:

1. None
2. Little
3. Average
4. High
5. Highest

The Association used only one stimulus item compared to the 25 items used in the FEATT Viewer Reactions To Tapes instrument. Data from the Association's study of programs intended for use in grades K-3 are shown in (Table 16).

Great caution should be used in comparing the data from the two studies since the Association's respondents were teachers while the FEATT respondents were persons concerned with pre-school education. Sesame Street would probably have earned a much higher rating from FEATT's respondents than it did from the teachers. Broadcast time

TABLE 16

PERCEIVED INSTRUCTIONAL VALUE OF PRIMARY (K-3) TELECOURSES
1975-1976

Telecourse Title Subject Area Grade Level	Number of Evaluating Teachers	Mean Instructional Value of Telecourse
The Electric Company Lang. Arts/1-3	55	4.418
The Letter People Alpha One/K-2	132	4.113
All About You Health/K-3	181	4.049
Sesame Street Lang. Arts/K-1	26	4.000
Explorers Unlimited Soc. Studies/1-3	90	3.977
Other Families/Friends Soc. Studies/1-5	101	3.930
Lets All Sing Music/1-3	59	3.878
Mathemagic Math/1-3	58	3.793
Ripples Self awareness/K-2	72	3.722
Art Corner Creative art/1-3	58	3.586
Word Magic Lang. Arts/1-3	36	3.361
Imagine That Creative drama/K-2	81	3.185

[1]Source: Abstracted from Evaluation of Telecourses. Carbondale, Illinois, Southern Illinois Instructional Television Association, 1976.

probably also affected the perception of the value of a particular program. It is interesting to note that the FEATT programs did, however, earn a mean value equal to or higher than all programs other than the Electric Company. This suggests that FEATT did indeed accomplish its objective of producing a high quality television series.

FEATT's Cost Effectiveness

The estimated average production cost of each FEATT program was $10,000. This compares very favorably with normal ITV production costs of approximately $25,000 per half hour. The actual cost benefit would depend on the number of potential viewers. Since any estimate would be the rarest kind of guess, it is probably not worth making at this time. A more reasonable approach to cost benefit determination would be to compare the costs of a normal, or non-mediated, home based program with a FEATT-mediated home based program.

Currently there are three practical methods of delivering Next Steps Together programs, home video cassette players, community cable television, and public television. Each method has its merits and limitations. Use of home players provides parents with maximum flexibility since they can view the programs when and as often as they wish. However, the cassette player adds $167 per child a year to the program's cost. While public television is the least expensive, it provides the least flexibility. Parents must view the programs when scheduled. In addition, it is not usually possible to provide each family with more than one program per week. In many cases, however, one task is sufficient. Where community cable television is available, this is both a flexible and low cost alternative. Since most cable companies have several open channels, it

would be possible for families to call the cable company and request programs. Heavy usage would require the employment of an operator to play the tapes. This would add only $ .50 per child per day to the cost. Currently several center-based programs using Next Steps Together have the parents come to the center to view programs.

The actual cost of services might vary depending on salaries, fringe benefits, inflation, etc. For illustrative purposes a sample budget has been provided comparing a normal home-based early childhood program with a FEATT program utilizing home video cassette players and a FEATT program utilizing community cable television (Table 17). The normal program cost estimate is $1820 per child per year or $10.40 a day for each child. The home video FEATT service cost is $1283 a year per child or $7.33 daily, a savings of 29 percent. The CATV FEATT service costs $996 per child per year or $5.69 daily, a savings of 45 percent. The cost figures were based on a caseload of 1:12 for the normal program and a caseload of 1:24 for the two FEATT services. If the caseworker's load is only increased to 1:20, it is still possible to realize a cost savings of 15 percent for the home video service or 34 percent for the CATV FEATT service. Using FEATT programming can stretch scarce service dollars. Center-based programs using FEATT programs may not realize immediate dollar savings. However, their services should improve qualitatively. Improved quality which leads to improved efficiency often results in long-term dollar savings. Quality programming at lower cost is how FEATT pays off for the user agency and the individual child and his family. The ultimate beneficiary is each individual child.

TABLE 17

COMPARISON COSTS FOR HOME-BASED HANDICAPPED CHILD EARLY EDUCATION

Budget Item	Non-FEATT	FEATT[2]	FEATT[3]
Salaries			
Home Visitor	8500	8500	8500
Secretary	2000	2000	2000
Fringe Benefit (20% of Salaries)	2100	2100	2100
Travel	1500	1500	1500
Materials	500	2000	920
Communications	1000	1000	1000
Equipment	----	4000	156
FEATT Consultation (6 days @ $150)	----	900	900
Total Direct	15,600	22,000	17,076
Indirect Costs (40% of Direct)	6,240	8,800	6,830
Total	21.840[4]	30,800[5]	23,906[6]
Cost Per Child	1,820/yr.	1,283/yr.	996/yr.
	10.40/da.	7.33/da.	5.69/da.

[1]Costs are for home-based individually prescribed instruction.

[2]Budget for a FEATT augmented home-based program employing home video cassette players. Cost of players and videotapes is amortized over 5 years.

[3]Budget for a FEATT augmented home-based program employing CATV. Cost of tapes and equipment is amortized over 5 years.

[4]Per child cost computed on the basis of a 1:12 caseload.

[5]Per child cost computed on the basis of 1:24 caseload.

[6]Per child cost computed on the basis of 1:24 caseload.

SUMMARY

While the Project look forward to further evaluation data, the analysis of the evaluation data indicate

(1) Parents can learn training strategies for specific developmental skills to implement with their handicapped child.

(2) The televised programming of developmental training procedures is an effective device for home based parent training.

(3) The most effective means of communicating training strategies to parents of handicapped children is via a combination of televised instruction and accompanying activity guides.

THE FUTURE OF INSTRUCTIONAL TELEVISION

The Project for Facilitating Educational Achievement Through Telecommunications was conducted from July 1, 1974 through June 30, 1976, under the terms of a contract with the Bureau of Education for the Handicapped, United States Office of Education. The Project produced 57 video programs designed to assist parents of severely handicapped children to teach their children the basic survival skills normally required of children up through the developmental age of two years. The Project demonstrated efficacy of video programming in a home based early childhood education program. The evaluation data suggests that such programming is both effective and cost beneficial. The use of television as a means of communication will allow the special educator to provide more intensive training for parents than has ever been possible before.

Possible Future Uses of FEATT Materials

Although the FEATT programs were produced primarily for use in direct individually prescribed programs, such as the Marshalltown Iowa Project and the Portage Project, many other uses for the materials have been suggested as the Project has developed. There is wide public interest in the use of the materials as general public education for parents of both normal and handicapped children. During the coming year many public television stations in the Midwest are planning to use the Project materials as part of their regular broadcast schedules. The outcome of such efforts will be awaited with interest. Another possible usage is in high school and college level parenting classes. Project FEATT personnel are looking forward to the development of a

high school parent education curriculum for high school seniors. This curriculum utilizing both the FEATT tapes and supplementary printed materials will be pilot tested in Indiana during the coming year by the Institute for the Development of Educational Alternatives, Inc. Another potential use is that of providing both preservice and inservice training for both paraprofessionals and professionals. Programs providing preschool services for handicapped children should find the FEATT tapes of great benefit for the training of staff on an immediate basis. Programs possessing a library of the tapes would have an immediate reference source for personnel needing information concerning the training strategies described in the tapes. It would be a great advantage to be able to go to a shelf, take a tape and play it. This immediacy of information geared specifically to need is an exciting new benefit. Preservice training programs should benefit substantially by having reference materials available to them which go into great specificity. There is little else available at this time which has the detail contained in the FEATT tapes. While the materials are not a totally complete early childhood program by themselves, they represent a major step forward in the training of workers with the handicapped.

Future Production, Utilization and Evaluation

Plans are now afoot to produce another 80 programs in the series in order to carry the series of programs through developmental age five. Negotiations for future funding are being carried forward with several foundations. When this additional support become available, the present series will be substantially enriched by the addition of new tapes. New changes in format will be forthcoming. There will be increased

emphasis on direct interaction between the programs and children as well as with parents.

Plans are also in process to expand utilization of the FEATT programs to a number of other states next year. The Indiana section of the Project will be greatly expanded next year. This widespread utilization will make the original investment in this series begin to pay dividends. There is also the need for further investigation of the efficacy of two-way video communication. Such a project is in the developmental stages at the present time. When this information becomes available, the special educator should have substantially more information concerning the potential of two-way video communication as a teaching medium. The evaluation results which have been so promising to date will be greatly expanded as additional numbers of children and families participate using the materials. By the end of year four of this expanded effort the efficacy of televised instruction should be understood more clearly. It is planned that data on as many as 500 children will have been gathered by that time. The unanswered, but real question, in terms of both early education for handicapped children as well as the effectiveness of televised instruction, is not what immediate progress a child makes but what happens to that child during his school experience from ages 6 through 15. Studies are now being planned to accomplish this long term follow-up which should give us more information about the efficacy of such efforts than we now have. There are many critics of preschool education. Their data base is substantially better than the data base of the advocates of such education. Carefully designed evaluation efforts should rectify this deficiency in the future.

The Role of Electronic Media in Special Education

Project FEATT, along with its four sister projects, funded under the terms of RFP 74-5 represent an initial substantial commitment to the investigation of electronic media and the handicapped. They were, however, just a beginning. It is obvious that we need many more such efforts. If the United States is ever to reach its goal of full service for all of its handicapped citizens, it is clear that the electronic media must have a great place in such efforts. The changing character of our society, the decreasing resources available to our society, and the limited number of personnel suggests that we must indeed to "more with less." The electronic media is a cost-effective means of extending the services of the trained special educator. This extension can result in a much richer future for all handicapped citizens. Instructional television is indeed the fourth revolution which will result in a richer future for millions of American children.

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