

DOCUMENT RESUME

ED 376 744

FL 800 827

TITLE Evaluation of the FEL+ Program, Final Report.
 INSTITUTION Evaluation and Training Inst., Los Angeles, Calif.;
 Sweetwater Union High School District, Chula Vista,
 Calif.
 SPONS AGENCY National Inst. for Literacy, Washington. DC.
 PUB DATE Jan 94
 NOTE 18p.
 PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS Adult Basic Education; Citizenship Education;
 Classroom Techniques; *Computer Assisted Instruction;
 Curriculum Development; *Educational Technology;
 *English (Second Language); *Family Programs;
 Instructional Effectiveness; *Limited English
 Speaking; *Literacy Education; Material Development;
 Parent Child Relationship; Parent Education; Program
 Evaluation; Second Language Instruction

ABSTRACT

An external evaluation of the Family English Literacy, Plus (FEL+) program of the Sweetwater Union High School District (California) is presented. Program objectives included: (1) development and implementation of curriculum and activities integrating technology-assisted instruction into the existing literacy program; (2) increasing parent/child literacy activities in the home through a "take-home technology" program for families; and (3) assessing, evaluating, and reporting the impact of these measures. The project focused on educationally disadvantaged, limited-English-proficient adults and children, and focused on instruction in English language proficiency, literacy, parenting, and citizenship. After a brief overview of program design and offerings, the report describes the evaluation methods used, challenges encountered in program implementation, and assessment results for each of the three program objectives. It was found that the first and third objectives were achieved completely, and that substantial progress was made toward achieving the second objective. Recommendations for program improvement include: institutionalizing the FEL+ program; maximizing classroom access to computers; and providing more orientation and encouragement for adult participants. (MSE) (Adjunct ERIC Clearinghouse on Literacy Education)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

Evaluation of the FEL+ Program Final Report

January 1994

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as
received from the person or organization
originating it.

Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

Submitted to:
Sweetwater Union High School District

Submitted by:
Evaluation and Training Institute
12300 Wilshire Boulevard, Suite 420
Los Angeles, California 90025

FL 800 827

BEST COPY AVAILABLE

**Evaluation of the FEL+ Program
Final Report**

January 1994

Submitted to:
Sweetwater Union High School District

Submitted by:
Evaluation and Training Institute
12300 Wilshire Boulevard, Suite 420
Los Angeles, California 90025

TABLE OF CONTENTS

Introduction	1
Findings	6
Recommendations	11
Appendix A	12

INTRODUCTION

To increase literacy among adults in the Chula Vista/ San Ysidro area, the Sweetwater Union High School District developed the Family English Literacy, Plus (FEL+) Project, funded by the National Institute for Literacy. The FEL+ Project, which began on November 1, 1992 and ended October 31, 1993, was designed to provide undereducated, English-limited adults opportunities to increase their English language proficiency, literacy, parenting skills, and citizenship knowledge through the use of technology equipment and materials. Because the FEL+ Project was an enhancement of the already successful Family English Literacy Program (FELP) Project, the FEL+ Project's main goal was to investigate the use of technology, such as computers, in improving the basic English literacy skills of Limited English Proficient (LEP) adults and their children.

The FEL+ and the FELP Projects were unique in their designs in that both adults and their children were involved in the programs, increasing interaction between the two. While adults received instruction in English language proficiency, literacy, parenting skills, citizenship, and GED, children received assistance from tutors on their homework assignments. The adult and child participants were assembled together at the outset of each program session, creating a focus on the family as a learning unit.

The project's main objectives were the following:

- Develop and implement curriculum and activities that integrate technology-assisted instruction into the literacy program;
- Increase parent/child literacy activities in the home through a "take-home technology" program for families; and
- Assess, evaluate, and report the impact of technology-assisted instruction and "take-home technology" of the literacy learning of project families.

With the addition of technology-assisted instruction and the use of "take-home technology", it was hoped that LEP parents would create a literacy bridge between themselves and their children in their homes.

The project was designed to focus on the needs of educationally disadvantaged adults and children, and the location of the Sweetwater Union High School District provided access to this target population. The district is in Southern San Diego County, near the Mexican border, and the majority of the district's adult student population consists of LEP residents who face cultural and linguistic barriers. The FEL+ Project offers these adults the opportunity to break the illiteracy cycle.

UNESCO studies have shown that a correlation exists between the educational level of a parent and the academic achievement level of a child. Thus, by meeting the educational and literacy needs of the parents, the FEL+ Project will help LEP parents develop a positive intergenerational pattern of education.

Technology-assisted instruction and "take-home technology" center on portable Apple Powerbook computers. The decision to include a technology component in the program was based on the results of a survey evaluating FELP's first year (1991-92). The survey revealed that many participants felt that installation and use of technology equipment, particularly computers, would enhance the program. After receiving additional funding from the National Institute for Literacy, the Apple Powerbook computers were purchased to meet the technology needs of the participants. It was anticipated that both adults and children would benefit from the enhanced technological interactions, making the possibility of creating a "literacy-rich" home environment more likely.

Several programs, including word processors, databases, and typing skill tutorials, were installed in the Apple Powerbooks to help adult and children participants familiarize themselves with the computers. Many software applications focusing on English as a Second Language (ESL), English literacy, and parenting instruction were also installed. Other software applications included educational games and creative arts programs, such as "Where in the USA is Carmen Sandiego?" and Kid Pix, for the children.

FEL+ sessions were held in two locations: Southwest Junior High School and San Ysidro Middle School. There were 71 adult students cumulatively enrolled at the Southwest Junior High School site, while 57 adult students enrolled at the San Ysidro Middle School site. Biweekly sessions were conducted at each site during the regular school year, and FEL+ students assembled together for three hours each class session. There was little difference in student characteristics between the two sites. The majority of the student populations at the Southwest and San Ysidro sites were females -- 71% and 70%, respectively. The average number of hours of attendance per month per student at Southwest Junior High School was 12.33, compared to the 13.09 average hours of monthly attendance per student at San Ysidro Middle School.

During the Summer Session, classes were scheduled three times per week for three hours each session. Classes were conducted for six weeks at both sites, starting on June 29, 1993 and ending August 11, 1993. A total of 54 adult students attended classes, with female students constituting a large majority (70%). The average number of hours of attendance per month per student equalled 33.61 hours.

Sessions at both sites during the summer and the regular school year were structured in a similar manner. The first half-hour allowed the adult students and their children to assemble together for an English lesson or a Family Literacy lesson to enhance

literacy development in the family. Activities such as reading together took place during this first half-hour. Following the literacy development activities, the adult students and children separated, with the adults attending their classes (Citizenship, ESL, GED, or Parenting) and the children receiving tutoring. The adult students participated in class activities, such as computer utilization, at their own pace and attended classes of their choice. In fact, the availability of certain classes also depended on the needs of the students themselves. For example, students at the San Ysidro Middle School site wanted more Citizenship and ESL classes, while students at Southwest wanted to focus more on parenting, ESL, and GED.

Evaluation Methods

To assist in the evaluation of the FEL+ Project, the Evaluation and Training Institute (ETI) was contracted by the Sweetwater Union High School District. ETI conducted several activities as part of their contract.

ETI's first task involved a review of the technology-assisted instruction and materials used in the FEL+ Project curriculum. Evaluation activities consisted of two on-site visits to one of the schools and interviews with project staff.

Assessment of the technology component's effectiveness constituted the second task of the project evaluation. The main activity to accomplish this task was designing a participant questionnaire to assess the extent to which the program met the participants' needs. The survey also evaluated participant attitudes toward the "take-home technology" program component.

The final task encompassed the analysis of program outcomes measuring the extent to which the use of technology benefitted program participants as compared to those not exposed to the technology program aspect in the initial FELP Project. Data analysis activities included collection of baseline data from participating 1991-92 FELP students and parents and comparisons with data collected from 1992-93 FEL+ participants. 1992-93 data from participating FEL+ parents and students were provided to ETI by the Sweetwater Union High School District.

This report summarizes the qualitative and quantitative data collected on the FEL+ Project for evaluation.

Project Implementation

With the FEL+ Project as an enhancement of the successful FELP, project implementation experienced difficulties only in two areas: project start-up, and the "take-home technology" component. In the original proposal requesting additional

funding for the FEL+ Project, the project was scheduled to begin September 1, 1992. With the acquisition of computers delayed due to the limitations of the California Education Code, the project start date was postponed to November 1, 1992. The Education Code in the State of California, which governs all school districts in the State, required the Sweetwater Union High School District to comply with certain regulations regarding the renting/leasing of equipment. In particular, school districts renting/leasing equipment worth over \$5,000 are required to complete a bid process for a 30-day period. This regulation enables districts to compare bids for identical equipment and to purchase equipment at the lowest price. Additionally, the Board of Trustees must be notified of the request to rent/lease equipment, the bid for equipment, and the acceptance of the lowest bid at every step. Further delay was attributed to the school district Purchasing Department's misunderstanding of the conditions of the National Institute for Literacy. Verification of the need to rent/lease equipment to accomplish the goals of the FEL+ Project was necessary, leading to the postponement of the project's commencement.

Another challenge facing the FEL+ Project was in the "take-home technology." As part of the technology component of the FEL+ Project, portable Apple Powerbooks were purchased to enable adults to take their learning experience home with them and to share it with their children. Before participants were allowed to take a computer home, they were required to fulfill all eligibility criteria for the take-home computer program. **Figure 1** reproduces the regulations and requirements of the take-home computer contract.

Although the presence of computers was highly requested in the FELP evaluation, most adult participants were reluctant to use the computers. Because the adult participants were not receiving the 10-15 hours of computer experience required to take home a computer, the "take-home technology" component was not utilized during the FEL+ Project's funding period ending October 31, 1993. Project staff hoped to launch the "take-home technology" component in November, 1993.

Location and use of the school sites also presented challenges for the FEL+ Project. Students enrolled at the San Ysidro Middle School site were faced with accessibility challenges due to the school's location. The San Ysidro Middle School is located at the top of a hill with little street lighting and no public transportation access. Because most of the FEL+ students enrolled at the San Ysidro Middle School site are economically disadvantaged, walking and utilizing public transit were the main modes of transportation used to arrive at the site. With limited street lighting, walking to the school presented a dangerous risk to the students' safety. Without public transportation to the site available, students were unable to attain easy access to site and to the program.

FIGURE 1

ITEMS FOR STUDENT/FEL PROGRAM CONTRACT

ITEMS FOR CONTRACT:

- Understand that take-home computer component is voluntary;
- Understand that certain criteria must be met before becoming eligible to participate in take-home computer program;
- May use computers in the classroom even if family does not want to participate in take-home program;
- If using the computers in the classroom, still must participate in FEL computer orientation;
- Understand that family must take all precautions and care with computers when transporting between school and home/using and or storing at home;
- Understand that the computers are not insured by the school district nor the FEL program and computers become the responsibility of the family for the take-home period beginning when computers go out the classroom door and ending when computers enter the classroom door;
- Understand that in order for all interested families to participate in the take-home computer component, families must return computers on specified days. If not, families may not be allowed to participate in take-home program; and
- Understand that the FEL staff will develop a list which will prioritize order of participation (1st eligible, 2nd eligible) of all families interested in the take-home computer component and will comply with that order.

ELIGIBILITY CRITERIA FOR TAKE-HOME COMPUTER PROGRAM:

- _____ 50 hours of attendance in FEL program for adults
- _____ 50 hours of attendance in FEL program for children
- _____ All family members to use computers at home must sign contract
- _____ All family members to use computers at home must participate in computer orientation in the FEL program
- _____ 10-15 hours of computer experience in the FEL program after FEL computer orientation

Because both the San Ysidro Middle School and the Southwest Junior High School sites were not established specifically for the program, the FEL+ Project also faced challenges in using the "borrowed" space. FEL+ classes did not always take place in the same rooms as in previous weeks. Students were moved from classroom to classroom, depending on the availability of certain rooms. With students and supplies relocated, storage space was also limited. In addition, classrooms at both school sites were not originally designed to house computers, and electrical outlets were not always available to use for the Powerbook computers.

FINDINGS

As mentioned earlier, the three main objectives of the FEL+ Project were to:

- Develop and implement curriculum and activities that integrate technology-assisted instruction into the literacy program;
- Increase parent/child literacy activities in the home through a "take-home technology" program for families; and
- Assess, evaluate, and report the impact of technology-assisted instruction and "take-home technology" of the literacy learning of project families.

The first and last objectives were completely achieved. Significant progress was made in achieving the second objective. Specific activities relative to the project's objectives are discussed below.

Integration of Technology-Assisted Instruction

To begin integrating the technology-assisted instruction into the FEL curriculum, a review of available technology within budgetary guidelines was conducted. Selection of Apple computers over IBM/IBM clones was based on the following:

- Among the students in the FELP Program who were already experienced with Apple and/or IBM/IBM Clone computers, those who had Apple experience showed more interest in the FEL+ Program;
- One of the ESL programs that was under consideration to purchase was available only in the Apple Macintosh format. This ESL program was especially interesting because it targeted ESL beginners;
- Additional rental/leasing of equipment for voice capability was not necessary with the Apple computers. Voice capability is extremely helpful for ESL participants; and
- The color portable Apple computers offered a wide variety of color ESL, Parenting, Citizenship, and GED software.

Once the portable lap-top Apple Macintosh computers were purchased, various software programs were installed. Some programs included generic computer software, such as word processors, databases, typing skill tutorials, and card/banner-

//

Citizenship instruction were also installed in each computer. The list of the 63 computer software applications is included in **Appendix A**.

Videos were also purchased to add to and enhance the technology component of the FEL+ Project. The list of videos are as follows:

- "Gilberto's Mayan Dream";
- "The Migrant Experience";
- "Abraham Lincoln";
- "A Food-Chooser's Guide to the Well Fed Cell";
- "Coping with Pressure";
- "Communicating with Parents";
- "Self-Esteem";
- "Because They Love Me";
- "Managing Your Emotions".

Implementation of the "Take-Home Technology" Component

Prior to taking the lap-top computers home, adults were required to fulfill certain guidelines stated under the "take-home computer" contract. The main requirement was 10-15 hours of computer experience after receiving a computer orientation with the FEL Program. Although all participants were encouraged to utilize the computers, few adult participants combined computer usage with their studies. According to the instructors, many adults were intimidated by the computers, and thus, chose not to integrate the technology component with their activities. The children, however, were more accepting of the computers, and they frequently used them to improve their math, writing, and creative arts skills.

Due to the adults' infrequent usage of the lap-top computers and their inexperience with the technology, the "take-home technology" component was not implemented during the grant period. Take-home activities were expected to begin in late Fall, 1993.

Project Outcomes

As part of the evaluation process, ETI collected entry and exit data from student ESL scores and developed a questionnaire for all participating adult students to complete. Out of 128 adult students participating in the FEL+ Program, entry and exit scores from 19 student records were available by end of October, 1993. In keeping with the CASAS testing methodology, posttests were only administered to those students who had completed approximately 100 hours of instruction. As noted in the introduction, the average student attended for less than 34 hours. The 19 adults for whom pre- and posttest data were available are the total population who received approximately 100 hours of instruction.

As shown in **Table 1**, students at both sites showed some improvement in their listening and reading skills on average. The scores presented are CASAS scaled scores.

Table 1
FEL+ Student ESL CASAS Scaled Test Scores

SOUTHWEST JUNIOR HIGH SCHOOL						
STUDENT	LISTENING SKILLS			READING SKILLS		
	ENTRY SCORE	EXIT SCORE	DIFFERENCE	ENTRY SCORE	EXIT SCORE	DIFFERENCE
1	189	192	3	215	212	-3
2	198	189	-9	210	217	7
3	232	223	-9	230	220	-10
4	214	232	18	235	240	5
5	223	214	-9	239	243	4
6	209	223	14	208	226	18
AVERAGE	210.83	212.17	1.33	222.83	226.33	3.50

SAN YSIDRO MIDDLE SCHOOL						
STUDENT	LISTENING SKILLS			READING SKILLS		
	ENTRY SCORE	EXIT SCORE	DIFFERENCE	ENTRY SCORE	EXIT SCORE	DIFFERENCE
1	217	220	3	217	220	3
2	184	196	12	0	196	N/A
3	240	227	-13	243	227	-16
4	201	214	13	197	214	17
5	240	227	-13	244	227	-17
6	209	223	14	196	223	27
7	192	204	12	205	204	-1
8	217	227	10	217	227	10
9	170	198	28	0	198	N/A
10	196	192	-4	184	192	8
11	220	227	7	243	227	-16
12	206	214	8	220	214	-6
13	223	232	9	226	232	6
AVERAGE	208.85	215.46	6.62	217.45	218.82	1.36

Questionnaires were distributed to students, and a total of 21 surveys were completed and returned to ETI. The questionnaire asked students to list all the classes they were attending and to rate the effectiveness of these classes in different areas. This section summarizes the major findings of the questionnaire.

Class Enrollment

Each site focused on different class content, according to the needs expressed by the student attending at each site. A large majority of respondents from San Ysidro Middle School were enrolled in the Citizenship classes, and more than three-quarters of the students were attending Parenting classes. In response to student requests, classes at Southwest Junior High School concentrated mainly on ESL and Parenting, with all students enrolled in both classes. Consistent with student priorities, citizenship classes were not offered at Southwest Junior High School. At both sites, GED classes experienced the lowest enrollment.

In the questionnaire, students were asked to "grade" different aspects of each class, ranging from an "A," denoting excellence, to an "F," denoting poor quality. As shown in **Table 2**, the majority of students surveyed agreed that the FEL+ classes were excellent in enhancing their literacy and family development.

Program Aspect	Number Giving A Grade of "A"
Citizenship: ¹	
Helped me understand U.S. Citizenship requirements	8
Helped me understand U.S. History	7
Helped me understand U.S. Culture	7
ESL:	
Helped me understand English	12
Helped me speak English	13
Helped me write English	12
GED:	
Helped me study for my High School Diploma	8
Parenting:	
Helped me understand & interact w/my children better	16

¹ Citizenship classes were offered only at the San Ysidro site.

Computer Utilization

At both sites, the majority of adult students reported that did not use the computers (12 out of 21 surveyed). When asked for the reasons why they were not using the computers, most students at San Ysidro Middle School mentioned that they either did not like using computers or they did not know how to use computers. In contrast, a majority of students surveyed at Southwest Junior High School stated that the main reason for not utilizing the computer component was inadequate access to the machines. With seven Powerbook computers available at each site and, as noted earlier, few electrical outlets present at the Southwest Junior High School site, accessibility to the machines was minimized. For those students who did report using the computers, most graded this component with an "A" (6 out of 8).

Adult students were also asked questions regarding their children's use of computers. Nearly half of the adult students at San Ysidro Middle School (4 out of 9) and most of the Southwest adult students (9 out of 12) stated that their children utilized the computers. When asked how many times their children have worked with the computers, most indicated that their children used the computers at least 8 times. A large majority of the adult students at both sites (10 of 13) agreed that the computers helped their children in a positive manner.

Overall, respondents felt that the FEL+ Program was extremely beneficial. A large majority of students (15 of 21 surveyed) graded the overall program with an "A." On open-ended portions of the survey, students indicated that the content-areas covered, such as citizenship, English, and parenting classes, were the most helpful aspects of the program. Survey respondents also commented on the benefits gained from the use of computers and indicated their willingness to use them more frequently in the future.

RECOMMENDATIONS

To assist the program reach its goals and objectives, ETI staff suggest the following:

Recommendation 1: The district should explore means of institutionalizing the FEL+ Project.

Institutionalization will provide the program with financial security, allowing it to purchase additional materials and supplies, and to establish a stable location.

If institutionalization occurs, the following suggestions should also be considered:

- **Provision should be made to maximize accessibility to the computers in the classrooms.**

According to the survey outcomes, students, especially those at the Southwest Junior High School site, commented that not enough computers were available. The availability of the computers appears to have been due to a combination of a lack of machines and an insufficient number of power outlets available at the school site. If the program is institutionalized, purchase of additional machines and establishment of a stable location, including a room with an adequate number of power sources, will increase the availability of the computers to students.

- **More attention should be given to orienting and encouraging adult students to use the computers.**

Adult students commented that one of the reasons they did not frequently use the computers was that they were unfamiliar with how to use them. Increased focus on computer orientation is needed to help build the adult students' skills in this area. The college tutors were more familiar with the computers than the certificated instructors and were able to assist the children in their use of the Powerbooks. Consideration should be given to expanding the tutors' role to include more formal computer orientation and one-on-one computer assistance for the adults. In addition, integration of computer learning into the curriculum will further encourage adults to utilize the computers and increase the instructors' familiarization with the capabilities of the Powerbooks.

APPENDIX A -- Software Applications

12

16

SOFTWARE TITLE

COMPANY

After Dark 2.0
American Heritage Dictionary
American History (for Mac Timeliner)
At Ease
BannerMania
Bloopers
Certificate Maker
Crossword Magic
Dinosaur Adventure
Eco-Adventure in the Ocean
Eco-Adventures in the Rainforest
Just Joking
Kids Pix
Kids Pix Companion
Mac ESL Program
MacGlobe
Mac Timeliner
MacUSA
Micro Soft Works 3.0
NEW Math Blaster PLUS!
Number Maze-Color
Number Munchers
Pow! Zap! Ker-Plunk! The Comic Book Maker
The Print Shop
Reader Rabbit 2
Resumé Writer
SAM Virus Guard
See the U.S.A.
Spell-A-Saurus
Spell It Plus
Spelunx & The Caves of Dr. Seudo
Swamp Gas Visits the U.S.A.
Treasure Mathstorm!
U.S.A. Travel Guide
Webster's Dictionary & Thesaurus
What's the Difference? Invertebrates
What's the Difference? Vertebrates
Where in the U.S.A. is Carmen Sandiego?
Word Search Creator
Words Tales
Yearn 2 Learn Peanuts

Berkeley
Wordstar International, Inc.
Tom Snyder Prod.
Apple Computer, Inc.
Broderbund
Binary Software
Spinnaker Ed Software
Mindscape
Knowledge Adventure, Inc.
Chariot Software Group
Chariot Software Group
Wordstar International Inc.
Broderbund
Broderbund
Hacienda La Puente
Broderbund
Tom Snyder Prod.
PC Globe, Inc.
Microsoft Corp.
Davidson

MECC
Toucan Software
Broderbund
The Learning Co.
Bootware Software Co.
Symantic Corp.
Compu-Teach

Davidson
Broderbund
Inline Software
The Learning Co.

Random House
Tom Snyder Prod.
Tom Snyder Prod.
Broderbund
Centron Software, Inc.
Warner New Media
Image Smith, Inc.

CD-ROM SOFTWARE TITLE

COMPANY

A Silly Noisy House	The Voyager Co.
The Animals	The Software Toolworks
Arthur's Teacher Trouble	Broderbund
CD Funhouse 8.0	Wayzata Technology
Four-Footed Friends	Zoom Books
Great Wonders of the World	InterOptica
LIFEmap Animals with Backbones	Warner New Media
LIFEmap Animals	Warner New Media
LIFEmap Organic Diversity	Warner New Media
Magnificent Education Games 7.1	Wayzata Technology
Mammals	National Geographic Society
Murmurs of Earth	Warner New Media
New Multimedia Encyclopedia 4.0	The Software Toolworks
The 1991 New Grolier Electronic Encyclopedia	
The Parenting Disc	Interactive Knowledge, Inc.
Rodney's Wonder Window	The Voyager Co.
Sports Illustrated Sports Almanac	Warner New Media
Talking Jungle Safari	New Media Schoolhouse
The View from Earth	Warner New Media
Wayzata World Factbook, 1993 ED.	Wayzata Technology
Words Tales	Time Warner Interactive Grp
World Atlas	The Software Toolworks