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ABSTRACT

The report for FY 1973 describes the planning and implementation of the secondary level Employer Based Career Education Program at Far West School (FWS). The report's introduction briefly describes the program's nature and objectives. Section 2, student recruitment and enrollment, describes the student population and the recruitment and selection procedures. Section 3, learning resources, discusses the procedures for recruiting, analyzing, and developing community resources, resource persons, and large employer organizations. Section 4, student program planning and monitoring, discusses the procedures developed for planning, implementing, and monitoring individual student programs. Section 5, learning outcomes, describes student progress as assessed through interviews, questionnaires, rating scales, standardized tests and inventories, and student records. Section 6, project management, discusses the project's decision-making process, external liaison, financial planning, and cost control. Section 7, summary and conclusions, outlines recommendations for FY 1974 based on the FY 1973 evaluation findings. Eight appendixes include excerpts from the 1972 Operational Plan, a sample resource person guide, and various forms and instruments used in evaluating the students and the program. (Author/JR)

employer-based career education

EVALUATION REPORT FY 1973

FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT
1855 FOLSOM STREET, SAN FRANCISCO, CALIFORNIA 94103

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
National Institute of Education
Career Education Task Force

EMPLOYER-BASED CAREER EDUCATION

EVALUATION REPORT
FY 1973

September 28, 1973

Far West Laboratory for Educational Research and Development
San Francisco, California

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INTRODUCTION

Employer-Based Career Education (EBCE) is a proposed alternative to classroom-based education. Its central feature is that it provides learning opportunities through direct experience in the community in places where work is being done and with adults who are doing the work. EBCE does not focus on the development of specific job skills. Rather, it seeks to provide students with opportunities to acquire academic, general, and occupationally relevant skills, all in the actual working environment of community life. The hypothesis being tested through the national EBCE program is that adolescent students who are given this opportunity to participate intensively in adult life will be better able to choose a career and to enter, advance, and find satisfaction in that career.

During the school year 1972-73, Far West Laboratory (FWL) implemented a small pilot program in Oakland, California. Beginning in the spring of 1972 FWS assembled and readied learning resources in the community. In September, 15 students were enrolled and 17 were added in January, 1973, at the beginning of the second semester. Twenty-eight students were still enrolled in the program at the close of the school year in June. Throughout the year, additions to the inventory of learning resources were made and various applications of these resources to the education of students were tested.

The essential purpose of this project was to implement a pilot version of EBCE and to refine and improve it on the basis of operational experience. The intention was to create an educational program that:

1. represents a viable, comprehensive alternative to existing educational programs;

2. makes education more relevant to life in general and to adult employment in particular;
3. integrates general, academic, and vocational preparation of each student;
4. broadens the base of community participation, especially to include the employing sector; and
5. broadens the base of student participation in determining the direction and nature of the educational process.[1]

The model that emerged from the first year of development and operation appears to the Far West project staff to meet the five goals stated above. The supporting data are admittedly soft, but the judgment is based on direct and intensive staff experience with students, participating adults, the Oakland Public Schools, and parents.

1. Viability. Positive attitudes toward the program were expressed at the end of the year by students, parents, and participating adults; therefore the program appears to be capable of satisfying students and community resources. There is no way of knowing how long this support can be expected to continue, but experience in the first year tends to confirm that a demand exists for the EBCE alternative and that the economic sector is willing to contribute to the meeting of that demand. Economic feasibility of EBCE remains an

[1]These five project goals were stated first in Hood, Paul D. and Banathy, Bela H. An Employer-Based Career Education Model; A Description and an Operational Plan, FWLERD, January 31, 1972, page 85, and were incorporated in Contract OEC-4-7-062931-3064, modification 12, EBCE Model Feasibility Studies, June 6, 1972, page 1.

unanswered question. Cost projections based on one year of small-scale operation indicate that EBCE can be made comparable in cost with more standard high school programs, but this assumes cost-free participation by employers and other community organizations. Vital issues of long-term funding have not yet been addressed.

Comprehensiveness. The 1972-73 program was sufficiently broad in its scope to enable students who completed the year to make normal progress toward the standard high school diploma. Eight seniors completed their graduation requirements through the program.

2. Relevance. Students and their parents frequently cited as a positive characteristic of the program that EBCE learning experiences enabled students to recognize the personal utility of what they were learning and that they were more "turned on" to education and to life in general than they had been before. This perceived relevance probably derives from two characteristics of the Far West version of EBCE: (1) Most learning occurs out in the community through activities that have a primary purpose other than the education of the young, i.e., they are "real" activities; and (2) EBCE students have wide latitude in choosing learning objectives and activities that have personal meaning. This kind of program also appears to be relevant from the standpoint of the business sector. Representatives of business and industry, serving on the Policy Advisory Board, expressed a conviction that on-site learning in the community is a direct and practical preparation for entering adult employment.

3. Integration. Individual learning activities and student projects retain the holistic quality of real experience. Our curriculum

organization does not partition the content of these learning experiences into artificial categories like academic, general, and vocational. Single activities and combinations of related activities foster the application and improvement of basic and life skills in the context of career exploration. First-year experience tends to confirm that this integration can occur and that students like it.

4. Community Participation. Adult volunteers representing 67 organizations provided on-site learning opportunities during the year. The management of six other organizations agreed to conduct orientations and exploration activities for students. These individuals and organizations, along with public libraries, museums, and educational agencies, demonstrated broad and substantial community support.

5. Student Participation. The student project is the basic mechanism for individualization in the Far West model of EBCE. The student selects objectives according to his own interests and needs and designs a sequence of activities aimed at achieving those objectives. In addition to having significant responsibility for their individual programs, students were also an important source of information and influence on the program that emerged from the first, formative year.

The year 1972-73 was devoted primarily to getting the Far West School into operation. Resources were assembled, prepared, and organized, and various procedures for applying these resources to employer-based, experiential learning were tried out. It was an informal, wide-ranging, learning year for the program staff, from which program goals, objectives, and procedures could be

defined more precisely and organized for more formal testing in 1973-74. (See Appendix A for excerpts from the 1972 Operational Plan.) The operations and development staffs worked to meet the needs and expectations of the students--improvising and making decisions almost on a day-to-day basis. Consequently, the formative program changes described in this report are not documented with systematically obtained, objective data. Rather, they are based for the most part on staff consensus reached through direct operational experience in identifying and solving problems.

STUDENT RECRUITMENT AND ENROLLMENT

USOE specified that EBCE was to serve a "cross-section" of students rather than any specialized subgroup. Specifically, FWL was directed to include in the pilot program both males and females; ethnic minorities and whites; currently-in-school and drop-outs; and college-bound and non-college bound. The age range was to be restricted to roughly 16-17 years.

During the summer of 1972, twelve "representative" students were hired as hourly-wage employees to collaborate in preparing resources and curriculum for the coming school year. They were obtained through referrals from Oakland high school counselors. The students' job, essentially, was to expose FWS staff to the kinds of problems that would be faced with full-time students in the fall. The summer experience demonstrated that many students--at least many of those referred to the program by school counselors--are very poorly prepared to accept responsibility, enter the adult world, and take advantage of the learning opportunities made available. Lack of preparation included disabilities in basic skills, especially communication, and lack of initiative and motivation. EBCE should eventually be able to serve students with such problems, but it was concluded that that kind of student could seriously overtax the program's resources and divert FWS from its developmental mission during the first year. Staff were concerned especially with employers' acceptance of students for on-site learning, and feared that initial failures could irreparably harm long-term chances of success in probing the extent to which learning can occur in the work environment.

It was therefore decided to screen applicants for fall enrollment to eliminate students with severe disabilities in communication skills, motivation, and initiative.

In the summer of 1972 a recruitment program through the Oakland Public Schools produced 75 referrals from which eight were selected for admission. They were selected through interviews and writing samples as having "adequate" skills in oral and written communication, as well as "adequate" motivation and initiative. Selection was based on the pooled judgments of two staff members who had worked directly with the summer students. These eight students, with seven continuing from the summer, brought the fall 1972 enrollment to 15. (Two of these dropped out before the end of the first semester.)

For the second semester students were recruited through the public media and through personal referrals by enrolled students. From this effort 54 students applied and 17 were selected for enrollment through interviews and writing samples (as in the fall). With 13 continuing from the first semester, this brought the total enrollment to 30 in February, 1973.

Table 1 shows the distribution of sex, ethnic membership, and grade level for the 30 students enrolled as of mid-year. The ratio of males to females was 19 to 11. All major ethnic groups were represented, with 16 ethnic minority students and 14 white students. Two sophomores, 17 juniors, and 11 seniors were enrolled. Ages ranged from 15 to 18 years.

In Table 2 composition of the Far West student body with respect to ethnic group membership is compared with that of the Oakland public high school population. It can be seen that whites and Chicanos were over-represented in the Far West student body.

Table 1 Classification of Entering Students by Ethnic Group, Sex, School Grade and Semester of Entry to Far West School

SCHOOL GRADE	SEMESTER OF ENTRY	ETHNIC GROUP								TOTAL
		Asian		Black		Chicano		White		
		M	F	M	F	M	F	M	F	
10	Fall	1								1
	Spring								1	1
	TOTAL	1							1	2
11	Fall	1		1		2	1	3	2	10
	Spring			2	2		1	1	1	7
	TOTAL	1		3	2	2	2	4	3	17
12	Fall							2		2
	Spring			1	1	3		2	2	9
	TOTAL			1	1	3		4	2	11
ALL GRADES	Fall	2		1		2	1	5	2	13
	Spring			3	3	3	1	3	4	17
	TOTAL	2		4	3	5	2	8	6	30

Table 2 Comparison of Two Groups of Far West School Students and Oakland Public High School Students with Respect to Ethnic Group Membership

(Figures in the table represent Per Cents)

	SEMESTER OF ENTRY	ETHNIC GROUP				
		Asian	Black	Chicano	White	TOTAL
FWS STUDENTS	Fall	15	8	23	54	100
	Spring	0	35	24	41	100
	TOTAL	7	23	23	47	100
OPS STUDENTS *		8	63	8	22	100

* *Data for Oakland Public Schools taken from "Report on School, Region, and District Racial Ethnic Composition of Students" Oakland Public Schools, October, 1972.*

Six of seven high school attendance areas were represented among the Far West students. This distribution, shown in Table 3, was achieved by design, to avoid significant impact on any one school's enrollment. Also, Oakland attendance areas reflect socio-economic status, which should be considered in achieving a representative cross-section of students. Data were obtained on family income for only 16 of the 30 students. Of these, three reported less than $9,000 annual income and four reported more than $26,000.

The distribution of previous high school grade point average for 23 Far West students is shown in Table 4. The range is 0.5 to 3.5 on a scale on which A = 4.0, indicating that all levels of prior academic achievement were represented. Three of the 30 students had dropped out of school prior to applying at Far West. The other 27 were officially enrolled in a public or private school during the term immediately prior to their entrance at Far West.

Table 5 summarizes what students reported they plan to do upon high school graduation. The data represent the students' statements of plans without further verification or analysis of degree of certainty. There may have been a tendency to specify college plans to enhance their chances of being admitted and retained in the Far West program. Twenty of the 28 students for which data are available, or 71%, indicated college as first choice.

Conclusions. Student recruitment and selection for the first year was successful in achieving diversity with respect to sex, ethnic group membership, grade level, high school attendance area, socio-economic status, prior academic achievement, and post high school plans. The experience

Table 3 Classification of Far West School Entering Students by Oakland High School Attendance Area

OAKLAND HIGH SCHOOL ATTENDANCE AREA	SEMESTER OF FWS ENTRY					
	FALL		SPRING		TOTAL	
	No.	%	*No.*	%	*No.*	%
Castlemont High School	3	23	0	0	3	10
Fremont High School	1	8	5	29	6	20
Oakland High School	1	8	0	0	1	3
Piedmont High School	1	8	1	6	2	7
Skyline High School	4	30	3	18	7	23
Oakland Technical High School	3	23	8	47	11	37
TOTAL	13	100	17	100	30	100

Table 4 Distribution of Previous High School Grade Point Average for Students Entering Far West School

GRADE POINT AVERAGE	SEMESTER OF FWS ENTRY					
	FALL		SPRING		TOTAL	
	No.	%	No.	%	No.	%
3.0 to 4.0	2	25	3	20	5	22
2.0 to 2.9	5	62	7	47	12	52
1.0 to 1.9	0	0	3	20	3	13
0.0 to 0.9	1	13	2	13	3	13
	8	100	15	100	23	100

Notes: 1. G.P.A. computed from scale with A = 4.0, F = 0.0.

2. G.P.A. could not be determined for seven students.

Table 5 Immediate Post High School Plans at Time of Entry to Far West School

	SEMESTER OF FWS ENTRY				TOTAL	
	FALL		SPRING			
	No.	%	*No.*	%	*No.*	%
COLLEGE ENTRANCE	10	76	10	59	20	67
MILITARY SERVICE*	2	-	0	-	2	-
ESTABLISH OWN BUSINESS	1	8	0	0	1	3
PROFESSIONAL MUSICIAN	0	0	1	6	1	3
UNCERTAIN	1	8	5	29	6	20
INFORMATION NOT AVAILABLE	1	8	1	6	2	7
TOTAL	13	100	17	100	30	100

* *These represent alternative choices if college entrance is not possible; since they are second choices, they are not included in totals.*

of the first year has led to the following tentative conclusions:

1. Almost every student who applied to FWS was dissatisfied with high school. Student disenchantment took various forms: some students were dropouts whose desire to learn had been squelched and who saw FWS primarily as a way out of an intolerable situation; and other students felt unchallenged by the regimen of standard classwork.
2. The program, as represented to students and parents the first year, did not appeal, in general, to the very high achiever with definite plans for immediate entrance into the university system, where admission is very competitive and based on grades and college preparatory courses. The Far West program was seen as imposing potential but obvious risks on these students.
3. Black students were not attracted to the program proportionately to their representation in the Oakland population. This appeared to be especially true of high achievers from middle- and upper-income families. Frequently, it was the parents of these students who perceived as unacceptable the risks involved in an unconventional and untested program.

Caution should be used in projecting the first-year experience to future recruitment and selection for EBCE. The Far West program was virtually unknown in the Oakland community until the summer of 1972 and was only moderately publicized through the middle of the school year. Perhaps more important is the fact that program definition was still nebulous at the opening of school in the fall and remained relatively unstable until near the end of the year. Stability of the instructional system, clear and complete documentation,

and more public endorsement by school officials could radically increase public acceptance of EBCE and change the requirements for student recruitment.

LEARNING RESOURCES

The Far West School depends upon the economic sector to provide learning opportunities in work and community settings through (a) support from volunteer Resource Persons (RPs), employed individuals who are willing to share knowledge, skills, and interests with a high school student in a one-to-one learning relationship; (b) support from Large Employer Organizations (LEOs) which have, as a result of a company's decision (as contrasted with an RP's individual decision), agreed to participate, and whose participation lends encouragement to its employees, lends status to the program, and enhances the EBCE concept; and (c) student access to community agencies (Community Resources or CRs) which offer learning opportunities, e.g., libraries, museums, galleries, and community colleges.

Although their functions overlap in the instructional process, RPs, LEOs, and CRs are conceived as discrete entities, each offering distinct kinds of learning opportunities. RPs are usually self-employed or work for fairly small firms. The RP has direct control over how much time he will spend with the student, what he will do with him, and how many students he will work with. It is through such one-to-one relationships that the student acquires his most intimate exposure to and intensive involvement in the adult world. While the student does get a broad view of an RP's career (e.g., personnel generalist vs. personnel specialist), he may not learn much about the functional interrelationship of positions within that career field. The student who learns about the same (or similar) career at a LEO often gets a more cursory exposure to the nature of a particular job, but he does have the

opportunity to see how the position functions within a total organization. At a LEO, the student works with an employee who may or may not have volunteered. The employee has some control over how he spends his time with the student, but the learning activities usually are determined and scheduled by the LEO management-level employee who serves as program coordinator. Learning activities at the LEO are organized to show students how the total organization functions and how each part interrelates with the others. Community Resources, unlike RPs and LEOs, do not require volunteer commitments or extensive on-site development. They are available to the public. The learning opportunities are implicit in the nature and purpose of the agency or facility, and are subject to the same constraints as those placed on the general public.

Development efforts during FY73 focused on the Resource Person and employer organization components of the curriculum. Progress, findings, and recommendations resulting from these efforts are described in the following pages. Community Resources were developed, usually by a single consultant; described in a "Community Resources Inventory" for students; and used by students in a variety of projects. In the absence of a well-developed pool of employer resources (RPs and LEOs) during the first part of the pilot year, students made heavy use of Community Resources, as well as courses offered by junior colleges and other community schools and agencies (see Exhibit A). Students working on American government and U.S. history projects rated Community Resources (e.g., city councils, courts, prisons), as their most valuable resources.

Exhibit A displays student use of program resources during the 1972-73 school year. Hours of student work total both horizontally and vertically.

EXHIBIT A: STUDENT UTILIZATION OF RESOURCES--SCHOOL YEAR 1972-73

(H = Hours, S = Times Used)

EMPLOYER CLASSIFICATION:****	TOTAL ACTIVITIES	TYPE OF INVOLVEMENT: Resource Persons	Large Employer Org.	Community Resources	J.C. Courses	Supplementary Resrcs: FWS Workshops	OPS & Other Community Courses	Volunteer Services	Work Experience	Reading & Research	LEVEL OF INVOLVEMENT*: ORIENTATION (1-12 hrs)	EXPLORATION (13-24 hrs)	IN-DEPTH (25 + Hrs)
COMMUNICATION	440 H 3 S	427 H [illegible]		13 H 2 S					40 H 1 S	10 H 1 S	10 H 3 S		417 H 4 S
CONSTRUCTION	80 H 3 S	65 H 1 S		13 H 2 S						2 H 1 S			65 H 1 S
EDUCATION	2846 H [illegible]	138 H 5 S			681 H 10 S	1291 H 24 S	238 H 4 S	95 H 2 S	200 H 1 S	203 H 6 S	24 H 3 S	14 H 1 S	
ENTERTAINMENT	545 H 7 S	302 H [illegible]		87 H 3 S					156 H 1 S		41 H 4 S	12 H 1 S	249 H 3 S
HEALTH	490 H [illegible]		420 H 4 S							70 H 3 S			420 H 4 S
MANUFACTURING	12 H 2 S		12 H 2 S								12 H 2 S		
PUBLIC & SOCIAL SERVICES	[illegible]	365 H [illegible]		920 H [illegible]				478 H 6 S	200 H 1 S	485 H 13 S	40 H 5 S	25 H 2 S	400 H 3 S
RECREATION	130 H 3 S	126 H 3 S								4 H 1 S		32 H 2 S	94 H 1 S
SALES	598 H 12 S	181 H 8 S	314 H 3 S						100 H 1 S	3 H 1 S	49 H 5 S	152 H 6 S	294 H 5 S
SERVICE	801 H 19 S	137 H 2 S		219 H 6 S			30 H 1 S		332 H 3 S	83 H 5 S	15 H 2 S	22 H 1 S	100 H 1 S
TRANSPORTATION	171 H 7 S	6 H 1 S	162 H 7 S	3 H 1 S							51 H 6 S	36 H 3 S	81 H 2 S
UTILITIES	7 H 1 S			7 H 1 S									
TOTAL HOURS	8718	1847	908	1262	681	1291	268	573	1028	860	242	393	2120

**** According to the Standard Industrial Classification. All course work was classified as interaction with the educational sector of the employer community, not according to subject matter, with the exception of one course taken through a service organization.

* Only includes Resource Persons and Large Employer Organizations. For a description of the levels of involvement, see Page 111 of the 1974 Operating Plan.

Numbers of students involved do not total since a single student may have been involved in activities across employer categories and with several kinds of resources. Volunteer services are resources where FWS students may work as volunteers. Last year these included a drug crisis center, a community center, and a halfway house for former mental patients. Work experience includes part-time work for pay and "outside work experience" credit. Either volunteer service work or work experience may involve the student with FWS Resource Persons, but not necessarily. Student involvement in these two kinds of activities are therefore reported separately.

RESOURCE PERSONS (RPs)

Resource Persons form a core element of the FWS EBCE model. Table 6 provides some measures of progress in developing this element during FY73 in five areas: recruitment; in-depth analysis resulting in the preparation of detailed RP Guides for student use; initial interview reports; breadth of career areas represented; and total organizations represented. Real progress in the RP recruitment and development process during FY73, however, was considered to be more qualitative than quantitative. Procedures and instruments used to recruit, develop, and document Resource Person learning activities were changed and refined during the year based upon staff observation and experience and student feedback. The various roles which RPs can play in the program were identified and defined. Criteria were developed to aid in the future selection of RPs and something was learned about the kinds of knowledge and skills students can acquire by working with Resource Persons.

Recruitment and development of Resource Persons went through three phases during the year.

Table 6. RP Development FY73

	JUNE 1972	JUNE 1973
RP'S RECRUITED	16	104
STUDENT GUIDES PREPARED *(In-depth Analysis)*		43
INITIAL INTERVIEW REPORTS	16	104
CAREER AREAS:		
Culture	2	8
Technology/Science	1	16
Environment		7
Communications/Media	3	15
Organization/Management	5	16
Commerce	1	4
Industry		4
Social/Community Service	4	34
TOTAL ORGANIZATIONS REPRESENTED	11	67

June-November 1972: Full-time recruitment by two External Relations staff members with follow-up interview by Curriculum Development staff member (Territory Analyst), resulting in an Interview Report describing the RP's work, the range of potential learning activities available to students, and suggestions for learning objectives and projects. (This was a time-consuming process, involving staff from two program components, resulting in lengthy eight-page reports.)

December 1972-February 1973: RP recruitment principally by students, a process which began somewhat accidentally due to the need for more RPs in areas of student interest and the need to focus limited staff resources on the recruitment of employer organizations instead of individual RPs. After special training sessions in the community career exploration workshop, students recruited RPs under the supervision of the Territory Analyst. Student-recruited RPs completed a one-page form developed by students to elicit information about areas of interest the RP would be willing to share with students. Student-recruited RPs were later interviewed by Curriculum Development staff who wrote up more detailed analyses in Interview Reports and/or RP Guides.

March-June 1973: Responsibility for RP recruitment shifted entirely from External Relations to Curriculum Development staff, eliminating a time-consuming duplication of contacts and the need for coordination between the two program components. A staff member could now recruit an RP and immediately conduct an in-depth interview and analysis for curriculum development purposes. The lengthy interview report format for describing learning possibilities was continued as new formats were tried out, resulting in the much briefer RP Guide for student use. The RP Guide format describing specific learning activities and suggested projects and objectives for various levels of student involvement was adopted as more functional, and the use of interview reports was phased out by the end of the year.

The current FWS collection of RP Guides provides a compendium of resources which students may consult when planning and pursuing their study programs. A sample guide for one RP is shown in Appendix B.

Findings and Insights

Student Use of RPs. During the year, FWS students spent 1,847 hours with RPs (see Exhibit A). Students' time with RPs fluctuated during the year, with the least number of hours spent during the months that subject workshops were held in the FWS center. With a change in instructional strategy in the second semester (workshops were replaced by student projects using external resources

to meet subject equivalencies), students spent more time with RPs. In year-end interviews, the majority of students reported that RPs had been valuable resources. (See the section on Learning Outcomes for examples.) Students usually desired deeper involvement with RPs and more hands-on experience as opposed to discussion and observation. Many RPs also expressed a desire for longer-term involvement with students so that they could get beyond the discussion/observation level.

Obtaining Union Support. As Table 6 indicates, RPs must be recruited in the trades (during FY73 only four in Industry), which means eliciting the support of labor. As predicted by the feasibility studies of EBCE, unions have not thus far indicated a willingness to participate in the program, although one RP is a union agent. Essentially, much of union displeasure with the program is the result of a belief that employers have control over the development of EBCE, and labor will not participate unless it has equal control. Unions also feel that EBCE is a threat to their apprenticeship programs. These beliefs are based on misconceptions of EBCE which need to be corrected if union participation is going to be recruited into the program.

Criteria for RP Selection. In order to develop an adequate initial pool of Resource Persons, staff acceptance of volunteers was almost automatic. It was only toward the end of the year that criteria for future selections were clarified, based largely on feedback from students about their experiences with RPs. When faced with a choice among two or more potential RPs, (a rare situation in the early months of the last school year), all things being equal, RPs would now be selected where:

1. The student can have hands-on experience in real, or simulated, non-menial tasks.
2. The RP is experienced at, or has a strong interest in, working with adolescents.
3. The RP has time available to instruct the student and review his work.
4. The RP is capable of analyzing his work and willing to discuss with the student the functions, problems, and requirements of the work, the kinds of interactions that occur at the workplace, opportunities for entry, and relationships among jobs at the site.
5. The RP is willing to discuss how the career affects his personal life such as necessary overtime, transfers, or entertaining potential customers at home.
6. The site includes both men and women in the same career whenever possible, especially those careers which have been traditionally limited to only one sex.
7. The RP is willing to work with a slow learner. (Many RPs want to work only with "quick" or "bright" students. To achieve a balance, RPs are needed who will help the less motivated, or less able, student.)
8. The student can choose among several activities on the site.
9. The RP is willing to share avocational interests with the student, e.g., the company bowling team.
10. The RP is engaged in on-the-job training or education which the student can observe or audit, e.g., a junior college class or preparation for state licensing.

RP Roles. A major outcome of the pilot year experience was the identification and description of RP roles for future testing and evaluation. It was discovered that Resource Persons may play a variety of roles, or combination of roles, depending upon their own education and experience, their interests, available time, and the nature of their work. It is essential not to arbitrarily define or limit the acceptable role(s) of RPs in ways that exclude those persons who can only volunteer a limited involvement with students. In some cases, even an hour or two spent observing and talking with a Resource Person may yield significant learning. It was generally found that extended involvement, where the student can actually perform simulated or productive tasks working with the RP, is more desirable. In utilizing employer settings and volunteers as educational resources for students, it was found essential to start with--and build upon--what is actually feasible in the situation and with the person, rather than begin with preconceived notions of what the RP should do with students. The roles that RPs may play are not only varied, but may occur in differing combinations. Following are some roles and role combinations employed (or developed by staff working with the RP) during the past year.

1. Providing students with an orientation only to the employer setting, the work performed, and the characteristics and requirements of the RP's career. Example: One RP is an administrative aide to a state senator. Her primary function is to handle requests/complaints from constituents concerning their problems with governmental agencies. She is also active in local politics and was a delegate to the 1972 Democratic National Convention. She is an extremely busy person and

works long hours, but she is willing to talk with students about her job, about the constituent service functions of a legislator's office, and about electoral politics, party organization, and related matters. The potential for student involvement in this situation is limited to observation and discussion for a limited time (a day at the most). It may, nonetheless, result in worthwhile learning both about careers in politics, other than being a politician, and about the political process.

2. Providing students with supervised simulated or hands-on experience in tasks representative of the career field. This role, which might be called that of a career experience supervisor, is always combined with that of orienting the student to the setting, the work, and the RP's career. For example, one RP is a plant chemist at the Richmond City Water Pollution Control Plant. This RP will teach the student the necessary techniques for sampling and testing the pollutants in water and will give continual guidance on the job. The student will be allowed to participate in actual sampling and testing procedures at the plant.

3. Serving as technical advisor for a student's project. As technical advisor, an RP may provide varied assistance which includes helping the student to plan a project to investigate a career field, to pursue a personal area of interest, or to satisfy an Oakland Public School course equivalency; helping

the student focus the scope of his inquiry, set goals, identify sources of information, identify activities necessary and products or outcomes of the inquiry; serving as a source of information or training the student in skills necessary to complete the project; and evaluating the student's progress toward meeting the objectives of the project. A Resource Person serving as a technical advisor may perform one or several of the above tasks and may combine the role of technical advisor with either 1 or 2 above.

Example: The director of the Oakland Economic Development Corporation holds a job that involves high level business dealings where it is seldom feasible to include a student observer. But he is willing to discuss his career with students. More significantly, he is willing to serve as a technical advisor to students interested in investigating the politics of poverty, the welfare system, relationships among local, state, and federal social agencies, and related subjects. (The RP has taught at the University of California Graduate School of Social Welfare and has been a lobbyist between a state agency and the legislature.) As a Resource Person and technical advisor, he is willing to help students identify problems to be investigated, to direct students to people they might interview and to readings, and to discuss with students the results of their investigations.

The above are the basic roles which RPs may play in working with students. A few RPs are willing to perform some alternative or supplementary functions:

4. Serving as a study group leader. At least two RPs worked with students primarily in this role. Examples: One is a foreman on a construction crew and a student at the University of California. He has worked with a small group of students in evening sessions helping them to select readings of interest--primarily in the field of sociology--and leading discussions of readings and social problems selected by students. Another RP, a teacher at an alternative high school in the Bay Area, conducts an evening study group in the sociology and psychology of women which some FWS students attended. In working with these RPs, students also acquire basic information about their careers.
5. Serving as adult friend or confidant. This role may exist in combination with one or more of the above. One man, for example, worked with students in art, which is his hobby, not his profession. He frequently talked with students about their personal problems.

Most Resource Persons during the past year confined their activities with students to providing orientations and supervising career exploration experiences. During the coming year FWS staff must investigate, refine, and specify these roles further, and explore ways of expanding the RP role to other areas. The technical advisor role must be further refined and means developed for identifying additional RPs willing and able to perform this function.

Resource Person Evaluations of Their Experience. At the end of the school year, it was decided to interview RPs by telephone about their experiences with FWS students. Two types of RPs were selected: those who had worked with students over a long period of time (30 to 150 hours), and those who had seen one or more students for only a short period of time (one to five hours). In order to insure a sample of 15, we selected 16 RPs who had had long-term involvement and five who had had short-term activities with students. Of these, seven of the long-term and one of the short-term RPs were unavailable for interviews (because of vacations, job pressures, or moving to another city), leaving 13 who were interviewed. Ten of the 13 RPs worked with one student each, two worked with two students each, and one worked with three students.

Resource Persons worked with a variety of students ranging from the most productive students to one who dropped out. Occupations of the RPs interviewed were newspaper editor (2), laboratory technician (2), astronomer, radio engineer, sportswriter, social worker, recreation/day care center manager (2), vice-president of a bookstore, machinist, city official. Student activities with RPs included going to council meetings; having their writing evaluated by a newspaperman; helping preschool children with arts and crafts; helping emotionally disturbed people with games, arts, and crafts; attending astronomy classes at an observatory and working with telescopes; performing odd jobs; and laying out simple designs in a machine shop.

Every RP stated that students learned about the training required, the type of people working in the career field, most of the tasks (including paper work) necessary to get a job done, and the personality

traits necessary. (For example, in the case of working with emotionally disturbed people, the social worker stated that the student learned that it is necessary to be creative to persuade a disturbed person to participate in activities and that a "necessary distance must be kept from those who want to attach themselves to you.") The students also learned that much routine work is done in all careers and that one may be called upon to perform tasks not specifically related to one's job.

The RPs expressed respect for the students' intellectual abilities and personalities. All RPs reported that they enjoyed working with the students.

Seven of the 13 RPs stated that they had helped the students and that they believed the students enjoyed working with them. Two of these seven said that their students were continuing to work with them over the summer months. Seven also felt that students had developed a good understanding of the kinds of skills and the tasks required for the occupation, four reported that students had a moderate understanding of their careers, and two said that time constraints had limited them to giving only a brief introduction to their tasks and that there had been too little time to judge students' level of understanding.

Nine RPs reported that they had benefited from their contact with students; the other four reported that they had spent only one to five hours with each of four to five students and believed that the students had not benefited much from these sessions. Cited benefits included learning what young people are thinking, that there are bright youngsters who cannot learn well in standard schools, and that it was satisfying to make career learning opportunities accessible to them. Three added that they were pleased that a new approach to education is under development.

Ten respondents said that the presence of students interfered slightly or not at all with their work. Occasionally it was necessary to cancel or postpone planned activities with students because of work priorities.

All except two RPs felt that support from the FWS staff had not been adequate. Follow-up interviews should have occurred during or shortly after students' work with them--at least, periodic calls from the staff would have been helpful. Program descriptions, visits, and in-progress evaluation forms also were suggested to help them understand better what was important for the student to learn in meeting the program objectives.

When asked if they wished to establish restrictions on student participation with them next year, seven RPs replied that they would impose no restrictions, others wanted students who were "bright, like the student before" and "eager to learn." Two said they would like to work with one or two students for at least a month on definite schedules. Two others suggested a limit of one or two students at a time. One RP reported that he would be too busy to participate during the next school year. One of the most positive indicators was that all of the RPs interviewed were willing to suggest friends or colleagues who might be interested in being RPs.

The interviews indicate a need to better inform RPs about the functions of the school. Only three described the school with complete accuracy. The rest had a basic idea of the program, but thought it was designed primarily for exceptionally bright, highly motivated students. Three RPs said that a visit by a staff member to talk to the RP's associates about the program would be helpful.

Summary

The overall assessment is that the Resource Person concept offers a promising means for expanding the kind of diversity of learning opportunities and resources available to students and for increasing the participation of the economic sector in the educational process. (Using organizations as opposed to individual volunteers is another viable mechanism and is discussed below.) From the year-end RP and student interviews (see the section on Learning Outcomes), plus staff assessment of student projects, it is evident that informed, enthusiastic adults can provide significant learning experiences and that these can be rewarding to the adults as well as to students. The Resource Person-student relationship can motivate students to want to learn and can result in learning beyond the acquisition of first-hand information about a career or job. Students can develop communications skills, interpersonal skills, and problem-solving skills, and can acquire relevant, practical information about a host of subjects by working with Resource Persons. Much can be done to improve the development and use of Resource Persons in an EBCE model. The RP concept certainly deserves further development and testing to determine educational benefits, how benefits can be maximized, associated costs, and long-range feasibility. Some recommendations are provided below.

Recommendations

1. Develop a program description and operating manual for RPs designed to guide their work with students in general.
2. Provide students with a format or mechanism for communicating to an RP their own individual reasons and objectives for

working with the RP. (A revised project planning form should both facilitate student planning of their objectives and activities as well as enable students to communicate their plans to RPs. Both RPs and students need to fully understand why they are working together.)

3. Develop mechanisms for having RPs evaluate student progress and achievement in terms of the student's own objectives and in terms of growth in communications, problem-solving, and interpersonal skills. (Asking RPs to evaluate student progress in prespecified areas should eliminate any confusion over what FWS expects students to get out of their experiences with RPs.)
4. Develop procedures and instruments to facilitate and assure regular contact between FWS operations staff and RPs. Advisors should follow-up by telephone at least on one of every three student orientations with RPs, and should monitor on-going relationships at least every two weeks. A control needs to be developed to assure that all RPs are contacted by staff at least once each semester.
5. Further define and explore the feasibility of RPs serving as technical advisors on student projects, involving them in both planning and evaluating student projects with the students.
6. Develop mechanisms, procedures, and descriptive material which will increase union support in obtaining Resource Persons who are either union members or employees of unions.

LARGE EMPLOYER ORGANIZATIONS (LEOs)

A LEO is an employer organization (as opposed to an individual RP) which makes its facilities and staff available to small groups of students for a series of preplanned learning activities. These activities vary from orientation briefings to observation and hands-on experiences in several divisions of the organization to long-term involvement in one or more divisions. The student should gain a broad exposure to a large organization and to a wide range of occupations. LEOs and RPs provide complementary learning experiences. RPs provide students the opportunity for personal in-depth contact and exploration. LEOs enable students to see the relationships among various jobs and positions.

Progress in recruiting and developing employer organizations, as with RPs, must be measured more in terms of quality (what was learned by staff, and improvements in procedures and instruments) than quantity.

Obtaining commitments from organizations to provide on-site learning experiences for FWS students proved to be much more difficult and time consuming than obtaining commitments from individual Resource Persons. Although numerous contacts with Large Employer Organizations were made by the External Relations staff during the year, it was not until February 1973 that we obtained a formal commitment to participate from a LEO, the Southern Pacific Transportation Company. We attribute the eventual success with Southern Pacific to the efforts of a consultant hired in January who had retired as the company's public relations manager after nearly fifty years with Southern Pacific. While our limited

experience is not sufficient to justify a recommendation that future sites need to hire an individual with extensive personal contacts in the business community to recruit employer organizations, it did provide FWS with a much-needed breakthrough. Shortly after securing Southern Pacific's cooperation, several commitments from other employer organizations were obtained. By the end of the second semester, four LEOs were participating in the program and each had had at least one group of students attend preplanned orientations. Following orientation experiences, a few students opted for further explorations at three of the four LEOs. Orientation at the fourth took place so late in the second semester that students were unable to engage in further exploration due to conflicts with their other scheduled activities and commitments.

Once commitments were secured from an organization to participate and the LEO had designated a staff member (called a program coordinator) to work with FWS, learning activities were planned and sequenced. With one exception (the Southern Pacific Transportation Company), learning activities were developed by the curriculum developer with the help of the appropriate LEO employees. First the developer met with the program coordinator to identify areas in the LEO where learning activities could be developed. Once the areas open to the students had been identified, the curriculum developer noted the names of the LEO employees who would be working with the students and sketched out possible activities. Later the developer met with these employees either individually or in small groups to discuss in greater detail what activities students could observe and what they could actually do with each employee. At the same time, the LEO employees had the opportunity to ask the developer questions about Far West School,

the students, or the program that was being developed. At the Southern Pacific Transportation Company, the Supervisor of Training (the program coordinator for Southern Pacific) developed the original program. The curriculum developer made comments and suggestions, but did not speak with the employees before the program at Southern Pacific was written and a schedule determined.

When the activities had been worked out, the developer arranged them in a logical sequence which was approved by the LEO program coordinator. The developer made frequent visits and telephone calls to the LEO to coordinate preparation and scheduling of the activities as well as to provide any needed trouble-shooting. All employees who were involved with students received a schedule and summary of the planned activities. If any changes were made in the dates or scope of the activities, employees were notified in advance.

A small group of students then completed the program, which lasted from 20 to 50 hours over a one- to two-week period, as a pilot test. The program included short experiences in as many of the LEO's divisions as possible, and included some hands-on experience or other task through which students acquired skills and knowledge. It also included a good deal of passive learning (observation and demonstration). In the pilot test, the curriculum developer acted as a monitor, watching to see that things moved smoothly and suggesting program changes where appropriate. He evaluated the activities through observation and/or post interviews with the participating students.

When the pilot test had ended, the curriculum developer met with the LEO program coordinator (and any other necessary LEO personnel) to

discuss the successes and failures of the pilot-test version and to make arrangements for future development and subsequent student involvement. Along with reorganizing the original activities, the curriculum developer identified divisions where a student could have a more lasting experience, perhaps up to 100 hours. Reorganizing the original activities also included strengthening weak areas, rescheduling amounts of time spent in each department, and either broadening or narrowing the entire program as necessary. Changes were made only with the concurrence of the coordinator. The final, written description of the LEO contained learning objectives and specific information about the learning activities.

A starting date for LEO activities was set in advance and a list of participating students was given to the program coordinator. For some LEOs, the total schedule was prearranged, while others worked with the students to plan the schedule after the set starting date.

Employees were given direction on how to interact with students and then left to their own resources. The program coordinator interacted periodically with the staff to find out how the activities were working and suggested revisions based on evaluation of the activities by Far West School. Since students have participated in only four LEOs to date, it is not yet possible to say whether this method of supervision will be the one recommended for the model. It does not appear to be necessary or cost effective for FWS staff to directly supervise learning activities in LEOs.

The roles of LEO employees in interacting with EBCE students have had little time to crystallize in the past year.

Findings

Four employer organizations were made available for orientation-exploration by students during FY73: Southern Pacific Transportation Company, Rhodes Department Store, Moore Business Forms, Inc., and Breuner's Furniture Company. Experiences with these four LEOs are described in the next four sections.

Southern Pacific. Seven students attended the Southern Pacific orientation which lasted six hours. The orientation included a lecture, slides, a film, and discussions about the history, size, structure, and product of the Southern Pacific Company. Information about the careers available at Southern Pacific was also included. The exploration, which was five days long, six hours a day, and was attended by two students, took the students through the administrative and freight offices in Oakland. There they were shown how the employees keep track of Southern Pacific's cars and trains, were given short, personal histories by several of the older employees, and were taken on a tour of the Oakland yard from the "rip tracks" to the "piggyback" operations. The students were also shown how to operate the input/output computer terminals, how the cars are weighed, how crews are assigned, and how the trains are put together in the yard. Students were able to observe and discuss the role of the unions in the operations of Southern Pacific.

Staff members discussed the experience with the students afterward. The students were generally favorable toward content and people, but felt that the sessions were too long. Still, the students recommended the experience for other students. (The forms for recording students' responses

and monitors' assessments are shown in Appendix C.) Students agreed that information on the following items had been given during the Southern Pacific orientation:

1. how academic skills are applied on the job;
2. how the many employees depend on each other's skills to accomplish the objectives of the company;
3. how a large company is structured and managed;
4. what different careers are available in a large company;
5. some of the principles of the business world;
6. insights into human relations from seeing how people interrelate while accomplishing a task;
7. the influence of social problems on the world of work;
8. the amount of individual expression allowed by management; and
9. the salary and fringe benefit structure of the business.

The experience at Southern Pacific was monitored by two curriculum developers in terms of the learning outcomes in these areas:

1. range of careers available;
2. educational requirements and skills necessary for several types of careers;
3. employee salary levels and fringe benefits (sick leave, vacation time, etc.);
4. hierarchy of positions;
5. role of the union in the internal growth and structure (rates, personnel policies, seniority, etc.);

6. social issues at play within and upon the organization, and how Southern Pacific responded to them (affirmative action, environmental concerns, national transportation requirements, etc.); and
7. railroad history and its role in U.S. history (effect on national borders, immigration laws, the population and growth of cities, etc.).

One monitor observed that the activities and information presented were sufficient to meet the specified objectives, but that there was little to no observable student reaction. The other monitor observed much student reaction to the information and activities presented. (This contradiction between raters indicates the need for definition of procedures for judging student participation.) Both monitors felt the experiences at Southern Pacific were worthwhile to students and would enable them to achieve the expected learning outcomes.

Rhodes Department Store. Three students attended the orientation at Rhodes Department Store, which lasted about two hours. For the exploration, each student worked out his own schedule, spending about half a day in each of five departments (out of a selection of eleven). At the end of the exploration, the monitor held an informal rap session with the students to record their opinions about the activities at Rhodes. The students reported that content and length were about right; that employees' attitudes, preparation, and response to questions were good; and that the experience was very informative.

The curriculum developer who monitored the students' activities at Rhodes observed that some of the employees had not been properly prepared

to work with the students and that some adjustments in the schedule of activities needed to be made. He also recommended some additional development, including an informative discussion with those employees who would be working with the students.

Breuner's Home Furnishers. The orientation at Breuner's Home Furnishers was attended by two students and lasted about three hours. The exploration activities began the next day and lasted for ten full days. The entire orientation was observed by one monitor, but only parts of the exploration were monitored. The monitor (a FWS curriculum developer) reported that the exploration went very smoothly for a first run through and noted that the students had few complaints. He suggested some scheduling and development changes.

The following is a direct quote from the monitor's evaluation summary:

> The students felt Display and Marking Room were the best experiences of the entire exploration, both from the standpoint of knowledge and skills learned and the most interesting hands-on experience. Dusting in the Small Wares Department was the least enjoyed. However, overall they saw very few needed changes. They were particularly impressed with all employees' concern over good customer service, courtesy, and responsiveness to customer needs. Both students said they would suggest this exploration to other students. The Breuner's exploration was very smooth for the first time through. A little more development should tighten it up and make it an excellent set of learning experiences for our students. A little more development will also make the experience less taxing on the Breuner's employees.

Moore Business Forms. The three-hour orientation at Moore Business Forms was attended by two students and a staff monitor. There was no schedule of activities planned for the exploration. It was to be worked out between the student and the LEO program coordinator at the orientation. One student decided to do the exploration which began the next week. The student attended one half day, missed another appointment, and came down with the flu. As it was June, staff formative evaluation of exploration activities was postponed until the fall semester when students could be expected to complete the activities.

Summary of Findings. During FY73, three major kinds of information regarding LEOs were sought: a mechanism of procedures which would help to secure participation agreements from employer organizations; formative data to assist in the development of learning programs at LEOs; and data regarding students' affective responses to LEO programs.

The employment of an experienced member of the employer community with extensive personal contacts proved to be one effective means for eliciting cooperation and support from Large Employer Organizations.

Student responses on questionnaires and interviews, and staff observations from monitoring students' experiences at LEOs led to several improvements in selection of activities, scheduling, and personnel involved in programs at particular LEOs. A number of potential problems which might be common to the use of LEOs and needs which will have to be addressed in FY74 were identified. The fact that there had been limited direct contact by FWS staff with low-level LEO employees presented problems in some instances. LEO employees are often recruited by management rather than allowed to volunteer. It was found that some

employer-recruited people really do not like working with the students and do not work well with them. There is a need to develop a mechanism for tactfully changing LEO staff in these situations. It is hoped that the program coordinator or other LEO designate will take charge of monitoring student progress in LEO activities. Forms and/or interview techniques must be developed so that LEO employees themselves can assess student progress. Efficient procedures must also be developed for modifying the presentations and discussions with the LEO staff that have been rated unfavorably by students. There is a need to find out how much supervision of employee instruction is necessary; how supervisors should be trained; and how, when, and to whom they will report.

Students were generally satisfied with the LEO programs. Expressed dissatisfaction related largely to orientation presentations which involved too much passive listening versus active learning, and the desire for more hands-on experience in various tasks during exploration activities as opposed to observation and discussion. The fact that two curriculum developers monitoring the same activities observed quite different student reactions indicates the need to clarify and then validate instruments and procedures used by monitors next year. Revised monitoring instruments should be tested by comparing the results from independent monitors until it is determined that the instruments are reasonably reliable.

Recommendations

During the coming year:

1. Revise and validate guides, questionnaires, and instruments used to provide systematic feedback from students and monitors on LEO experiences.

2. Develop and document procedures for initially developing learning activities at LEOs and for working with LEO officials to make changes in activities and involved LEO staff when student and monitor feedback indicates a need for change.

3. Develop means of making student experiences at LEOs more interesting and worthwhile in terms of learning achieved. Specifically, obtain LEO agreements to provide students with more in-depth hands-on kinds of learning activities, and develop learning packages (discussed in the section on Student Program Planning and Monitoring) so that students are provided with guidance and suggestions for problems and issues they can investigate at LEOs. For example, one way to improve the initial orientation sessions would be to send students who are prepared to ask questions and pursue issues.

METHOD

At the outset, FWL feasibility studies revealed that no real precedent was available to guide development of a comprehensive EBCE model. Little was known about what EBCE curriculum content should be, how to effectively interface the "work" and "study" components, and how to capitalize on learning resources available in the community. The published curriculum packages surveyed were judged not suitable to the kind of integrated learning EBCE proposes to offer.

The alternative to developing curriculum in a paper vacuum and then trying it out on students was to develop the instructional/learner system with students, through an empirical cut-and-fit process. The plan was to use students as collaborators, while not jeopardizing their education. The process by which the instructional model evolved was a combination of preplanning and opportunism. A broad set of learning objectives, developed during the feasibility study, served as a framework or guide for determining effective learning opportunities at employer sites; at the same time, developers were responsive to the potential of a given site, both in terms of complying with restrictions and incorporating unforeseen learning opportunities into the model. It was felt that only such a method could provide answers to the questions: how much and what kind of learning can in fact occur in a variety of employer and real life settings; and exactly what skills and knowledge can an adult out in the real world share with a student?

The method presented difficulties during the initial phase of development. Revising procedures in response to immediate needs, sometimes on a

day-to-day ad hoc basis, prevented the decision-making process from being as systematic as was desired, and made it difficult to document.

This process of developing procedures and learning activities, trying them out, and revising them, relied heavily upon immediate feedback from both staff and students, and to the extent possible, from RP's. This feedback was obtained and consolidated through the following means:

1. weekly curriculum planning meeting (Development and Operations staff with student representation);
2. curriculum advisory committee, including staff, students, RPs, and an OPS representative;
3. student program review committee (three staff and two students); and
4. weekly student-staff meeting.

In addition to these relatively formal sources of feedback, it should be pointed out that the small student body, and the initial instructional system with developmental staff serving as workshop leaders and technical advisors, permitted regular informal contact between staff and students so that student reactions were received on almost a daily basis.

PLANNING AND IMPLEMENTING STUDENT PROGRAMS

The process of planning and implementing individual programs in FY73 evolved through three phases of curriculum organization.

Phase I. In the summer of 1972, during the pre-pilot phase of program development, the staff had limited experience working with some part-time students and a few dozen Resource Persons. They identified some ways to plan and expand on student learning activities and objectives, using

employer-based resources. The pre-pilot also served to identify the more significant problems of operating with limited program resources and an untrained staff.

In the fall of 1972, pilot program operations began. As the pool of Resource Persons and Community Resources was increased, there was a parallel need for increased staff resources. Teams consisting of a curriculum developer and an advisor were formed to work with students in planning their individual programs. Curriculum developers contributed expertise about resources and how to plan and monitor programs based on specific objectives; and advisors were to see that students kept their appointments, rap with them about problems, and document behavioral changes. The curriculum developers were to assure quality of students' curriculum areas specified in the curriculum goals and objectives:

Reading	Decision-making Skills
Writing	Inquiry Skills
Oral Communication	Career Awareness
Quantitative Skills	Self-knowledge
Interpersonal Skills	Career Planning & Decision Making
Problem Solving	Career Entrance Skills

Advisors assumed the roles of counselor, rap group leader, and activity monitor. Later, in the second semester, when curriculum developers returned to developing curriculum resources, it was found that advisors had had little opportunity to learn how to plan individualized learning programs. They had been cast more in the role of "buddy" than that of "teacher." During the second semester it was difficult to change their roles so that the advisors would be "in charge" of coordinating and managing the students' programs.

Initially the planning process focused on student interests, almost any identifiable interests, then finding Resource Persons or other resources in the community with which the student could get involved. The assumption was that once a student was involved in a motivating activity, it could be supported and expanded to create a well-rounded learning program.

The process worked well for some students, but most were not becoming significantly involved in community-based learning activities, for the following reasons:

1. Many students, despite interests stated in diagnostic interviews, were not sure what their real interests were.
2. Others had uncommon, even exotic interests (e.g., astrophysics), and the early pool of RP's did not reflect the "ideal" variety of career and subject area interests that would accommodate the specific interests of all students.
3. Most students had never encountered a learning process that required the kind of initiative and self-reliance EBCE asked of them. They had been unaccustomed to making decisions that involve real latitude of choice and accepting responsibility for those choices. This lack of readiness manifested itself in apathy, a low tolerance for flexible structure (which students initially perceived as ambiguity), and a reluctance to commit to in-depth experience, all of which tended to result in "dead time" and under-utilization of resources.

In other words, the program's procedures and community learning resources were not yet sufficiently developed to provide students with a "comprehensive education." Therefore, it was decided to provide students with a transitiona

curriculum to give them core cognitive, social, and career awareness skills, enabling them to profit from one-to-one relationships with Resource Persons out in learning sites.

Workshops: To provide immediate help in areas not yet adequately covered by Resource Persons, workshops were instituted in the following areas: decision-making for careers, learning with Resource Persons, introduction to volunteer community service, volunteer tutoring, introduction to the resources of the community, communications (reading, writing, speaking, listening), computation (whole numbers, fractions, decimals, percentages), history, Spanish, algebra, and mass media.

These workshops were held weekly, and used as their raw materials student experiences in the community. They were conceived as temporary measures, with the understanding that some might be incorporated as legitimate components of the model.

Phase II. Students did not develop hoped-for involvement with external learning resources; so many supplementary activities were offered at the Resource Center that students had little motivation to get involved in field activities. It was concluded that more structure was needed for planning and integrating the students' disparate experiences.

Individual projects were designed to stimulate longer-term planning, to bring together the various curricular activities, and to encourage deeper career exploration. In the middle of the Fall Semester a requirement was established: Each student would complete a "project" each semester, involving a subject area of career exploration of personal interest using Resource Persons and Community Resources.

The success of the student project notion during the first semester led to adoption of student projects as the major vehicle to provide organization to individual student learning programs and activities. During the Spring Semester, students, working with their advisors, were to build their programs on projects which would include specific learning objectives to be accomplished and products to be completed. Even physical education activities and participation in workshops or junior college courses were to be covered by a "Student Project Plan."

Essentially, the student program planning procedures during Spring Semester involved: (1) identifying students' interests in career or subject matter areas; (2) identifying students' learning needs for OPS graduation requirements and future goals (higher education or immediate employment); (3) developing career and/or subject area projects to meet interests and learning needs; and (4) filling out the remainder of the student's program with workshops (only the communications workshop was given on a regular basis), study group activities (such as American government or U.S. history rap groups), or a junior college course to meet specific interests or educational needs of the student.

Phase III. In the Spring Semester, all but the communications workshop were phased out, for the following reasons: retaining them any longer would run the risk that FWL's EBCE model would assume the characteristics of a school-based career education program; the pool of RP's had grown and procedures for analyzing and utilizing them had improved; and a renewed belief by program staff that academic equivalencies could be developed using external resources and that we had not yet really tested the employer-based concept.

An alternative to workshop-based academics, namely academic study in the economic sector, was developed. The restructured American history workshop was based in the economic sector with students working on projects of their own choosing with a historical emphasis. In an American government package students prepared projects that involved researching the Oakland city election and working with candidates. A science package in the economic sector contained an array of options ranging from working in a medical laboratory to working with a mechanician in a college physiology department. These were called Subject Equivalency Packages. Eight students studied American history, three American government, and six science. In addition to their regular advisor, eleven students also selected technical advisors, or subject-area experts, to help them set up projects, plan resource use, and regularly evaluate students' progress. The technical advisors were either FWL development staff members or Resource Persons.

Two of the seventeen students failed to complete projects and to earn credit in the subject areas. These two students expected to finish their project over the summer or during the first two months of the 1973-74 school year.

A student Opinion Questionnaire on Subject Equivalency Packages was formulated and completed by students who participated. The items are shown in Appendix D. Questionnaire responses indicate that generally the students spent about the same number of hours on their projects as they would have spent in the classroom in the Oakland Public Schools.

Most students used Resource Persons, technical advisors, and Community Resources during their projects within a package. All three resources were

rated highly by the students with Community Resources seen most positively. For the seventeen students, ratings of "very helpful" (6 or 7 on a 7-point scale) and resource use were as follows:

	Very Helpful	Total Using Resource
Resource Person	9	12
Technical Advisor	6	11
Community Resource	12	14

Major Community Resources used were libraries (American history group) and city council meetings (American government group).

Students suggested ways to improve the package approach. Seven felt they needed more guidance such as regular deadlines for work due and regular meetings with advisors and technical advisors. Fifteen of the seventeen students would recommend the package approach to other students. Reasons given emphasize the value of independence, individual experiences, and advantages in learning in an area of interest.

Students' responses to the Resource Person Guides were mixed. Generally, they felt the guides could be improved by giving more information about the Resource Persons's background, personal characteristics, and expectations. Students in the government and science packages used the guides extensively; students seldom used them in American history, probably because an independent study/research approach was used in that package. Overall, students' ratings of the guides were varied, generally favorable. Sixteen students stated that the guide format (as opposed to lengthy interview reports) should be used for other Resource Persons, not just those in packages. (See Appendix B)

Students were asked to list any careers about which they had gained information while working on the packages. The American history group had

the fewest careers listed and these careers were only peripherally related to the topic of American history. Two students in this group did not learn about any new careers. In contrast, each member of the American government group learned about at least three careers in the fields of politics or media. The science group observed a number of careers in science--two members of this group mentioned five different science-related careers.

Towards the end of the year, the package concept emerged as the major means of organizing curriculum. A learning package became an assemblage of Resource Persons, Employer Organizations, and Community Resources, organized in terms of a common set of student outcomes (package goals) related to a "subject area" and careers associated with it. The organizing principle may be a genuine career area (e.g., commerce or communications and media), or it may be a competence or subject area (e.g., science or political behavior) satisfying both OPS requirements and student interests. This latitude in grouping allows students the broadest possible range for planning learning programs in all major areas of essential and desired learning. It was found that while students are curious about what adults actually do in their daily lives, many students do not find career exploration sufficient in itself to sustain vital learning programs. They are more interested in finding out who they are and what values they want to live by (what Erikson calls "ego identity"). Indeed, many students begin with a bias against the "technocratic establishment." The package allows those students to explore careers through the "vehicle" of a social, political, or interpersonal issue, some concern or interest sufficiently pressing to motivate learning and make the world of work accessible in "human" or personal terms.

A learning package offers the student a structured framework within which to make decisions, plan his own learning activities, and identify or

develop performance objectives he wishes to achieve as a result of his activities. The learning package also provides staff with a set of package goals which all students pursuing projects through the package are expected to achieve. The package goals serve as guidance to advisors in assessing student projects and determining when they are complete and sufficient in terms of the package. They also provide the curriculum development and evaluation teams some basis for comparison of student learning outcomes even though the students' objectives and activities vary according to personal interests and abilities. Finally, the learning package provides a mechanism for converting from a time-based to a performance-based instructional system. All students who achieve the goals of a learning package will receive "x" credit no matter how long it takes them to do so. When students are working on projects outside of packages, there is seldom any way to make direct comparisons between their diverse objectives and activities. In such circumstances it was found that "productive hours of work" was the only equitable common denominator for credit assignment purposes. The organizing rubric of the package allows some framework for comparison of student learning other than student hours spent in activities.

MONITORING STUDENT PROGRESS

In the efforts to document student learning activities and learning outcomes for very individualized and, therefore, diverse student learning programs, there was a reliance on the written word and on students to produce much of the documentation. The heavy demands placed upon students to report in writing their activities and what they learned seemed detrimental

to the program. Some students became hostile about having to respond to forms and having to pretend that their learning can be fragmented into little chunks for reporting purposes and credit assignment. The detailed progress monitoring and documentation required to support the developmental aspects of this program seemed in conflict with the educational thrust which is supposed to be focusing on whole behaviors.

Procedures and forms used during the Fall Semester for monitoring and reporting student progress were reviewed in January and revised. The Student's Weekly Activities Summary form was revised. The Student's Weekly Reflection Report was cancelled in favor of students' keeping logs and writing critical incident reports. Advisors were no longer asked to write weekly reports on student progress, but to do so on a monthly basis, or more frequently, as necessary.

Evaluation and comparison of student products over time provided another form of progress monitoring. Advisors were to spend a day each week in the field, monitoring student activities with employers and Community Resources and a form was developed for documenting these RR and CR contacts. Students' demands on advisors' time, however, prevented this more systematic monitoring from occurring on a regular basis.

While advisors had curriculum goals and objectives for core subjects to guide their work with students in planning programs and projects, the sheer number of objectives made it difficult to keep track of whether students were planning, and completing activities and project objectives in each of the core areas. Further, measures or indicators had not been developed to assess student growth in such areas as interpersonal or decision-making skills. Advisors were limited to reporting their subjective

impressions of student growth in these areas with reasons for their statements.

Formative evaluation efforts during the year focused on assessing and improving the process of student program planning, finding methods and instruments which appeared workable. Assessment of student products and progress and the assignment of credits to student work remained largely a subjective determination made by both development and operations staff in concert through the mechanism of a student program review committee (which included two student representatives). Students' products, associated with their projects, were judged either acceptable (in which case credit was awarded) or partially or not acceptable (in which cases partial or no credit was awarded).

Now that the process of planning and implementing individualized student programs using employer and community resources has been refined, emphasis needs to be placed on developing and improving mechanisms for progress monitoring and achievement assessment. Several such mechanisms identified during the past year include: 1) revising the student project planning form to serve also as a format to help RPs rate student progress towards their own self-set objectives specified in the project plan; 2) developing rating scales for RPs to evaluate student ability levels in communications and problem-solving skills; 3) developing criteria and scales by which to assess students' project plans and products; and 4) developing a system for coding student project objectives to core curriculum areas. These mechanisms will be developed and tested for utility in FY74.

MAJOR FINDINGS AND RECOMMENDATIONS

1. The "freedom shock" students experience upon entering EBCE necessitates a more effective orientation period. This can be accomplished by:

    a. starting with structured initial experiences and then increasing flexibility as students become ready to manage more freedom;

    b. providing initial workshops on project planning procedures; and

    c. conducting regular advisory group sessions during orientation.

2. It has not always been possible to provide the structure and close supervision that some students need. The advisors have had to rely extensively on their own judgment in terms of closeness of supervision and in terms of matching students with learning activities. Although diagnostic instruments can help students and advisors in the educational and career decision-making process, they are not always relevant. Thus, the burdens of program planning and diagnosis of student needs and interests rest primarily on the interaction between the student and the advisor.

    The fundamental problem, therefore, is to determine early in the program the amount of supervision a student will need and the best method(s) for matching students with learning experiences and for career decision making. Systematic

evidence is needed on the efficacy of particular diagnostic instruments in helping to provide the data necessary for the student/activity matching process.

3. The advisors were unable this past year to assimilate and effectively use rapidly developed curriculum objectives and activities, and learning resource descriptions; to use diagnostic test result interpretations; to use vocational guidance materials; and to write performance objectives.

   In order to better prepare advisors for their role in FY74, they will need training in:

   a. curriculum development, enabling them to better understand the curriculum descriptions they have to work with. (Advisors will accompany a curriculum developer to interview Resource People, identify learning activities on the learning site, and write objectives.)

   b. performance objectives by the Curriculum Development team leader and Operations Director, enabling the advisors to write and utilize performance objectives.

   c. American Institutes for Research (AIR) guidance package materials.

   d. Science Research Associates, Inc. (SRA) Career Information Kit and Occupational Exploration Kit.

   e. use of other guidance resource materials such as career kits and games (Career Information Kit, Life Career Games, etc.), assessment of materials, and

materials for the advisor's use (the College Blue Book, Counselor's Guide to Manpower Information, etc.).

f. blending of basic, life, and career development skills in individual student programs.

4. To insure better quality control, priorities should be established for curriculum goals and the number on which to focus progress monitoring and assessment efforts should be limited. Instruments for measurement, with indicators of student performance and growth, must be provided to Resource Persons and others who work with students so that growth over time can be assessed and documented. A systematic way of coding student project objectives to the core curriculum areas must be developed so that advisors can identify, from a quick review of a checklist or printout, when a student's total set of projects over time fails to include one or more of the core skills areas. Advisors and students could then plan appropriate modifications to the student's program. Finally, advisors and students should be furnished clear criteria for judging the acceptability of students' long-range plans and project plans and activities.

5. Student advisors cannot be expected to possess the requisite expertise in all subject areas in which students want to do projects. The role of technical advisor on projects has largely been performed by members of the Curriculum Development staff and by some Resource Persons. A technical advisor helps the student specify a project focus, identify sources of information, plan strategies and activities, and critiques the student's

performance or products. This role can be shifted to RPs, but they must be provided with clear and concise guidelines and procedures.

6. The integrative function accomplished through having students share and discuss their field experiences and studies, relating them to broader principles and concepts, was performed largely through the communications and other workshops conducted by various development staff members last year. This is, however, an Operations function and needs to be shifted to the advisory groups.

LEARNING OUTCOMES

During FY73, information on students was gathered to:

1. diagnose student needs, interests, and abilities to serve as a basis for planning their programs;
2. monitor student progress;
3. improve the curriculum; and
4. evaluate the program.

Accordingly, most information was collected to serve the purposes of development and operation; little data of strictly summative nature was collected during this formative year. Assessment of student progress relied heavily on staff observations and ratings, and on feedback from students and RPs. Some evaluative rating scales and questionnaires were developed in-house and used; only two standardized instruments were administered.

The documentation of student progress presented in this section is based on the following sources:

1. Interviews
   - Student Interviews
   - Resource Person Telephone Interviews
   - Parent Interviews
2. Internally-developed Questionnaires
   - Student Opinion Questionnaire
   - Job Information Questionnaire
3. Internally-developed Rating Scales
   - Advisor Rating of Student
   - School Opinion Scale

4. Standardized Tests and Inventories

   Jastak Wide-Range Achievement Test

   Super Career Development Inventory

5. Records

   Student Products

   Student Project Records

   Records of Credit Assignment

   OPS Transcripts

The data and findings for each instrument or source are presented below. Instruments were tried, evaluated, and either retained or discarded throughout the year; sample sizes vary throughout the data summaries.

OVERALL EFFECTS OF PROGRAM

Student Interviews. To consolidate and document students' assessment of their experiences during the year, what they learned, and how they felt about the program, three teams (consisting of three staff members) interviewed a total of 15 students. Each interview required approximately three hours. The questions to be asked were organized under the following headings: (a) Resource Persons, (b) mathematics, reading, writing, and interpersonal skills, (c) Large Employer Organizations, (d) career information, (e) program planning, (f) self-development, and (g) overall judgment of FWS. (See Appendix E for a list of questions.)

The interviews lasted two hours or more each. The questions were general, allowing interviewers to probe for details. The variability of information obtained did not appear to warrant quantitative analysis. Nonetheless, the student interviews generated valuable qualitative

information for staff with many examples of experiences and learning outcomes. The interviews enabled staff to identify a number of weaknesses in the program and generate modifications for the coming year.

In response to the question, "What is your overall opinion of FWS?" all student answers were favorable; the majority were enthusiastic. Reasons cited were:

1. freedom to plan own curriculum, pursue real interests, instead of merely fulfilling requirements or working for grades;
2. being treated as an adult, as an individual, with respect;
3. exposure to the "real world" (careers, variety of people, ideas, issues) made "academic" subjects and skills relevant to real life, increased motivation to learn, and stimulated interest in what's going on in society;
4. feel more confident;
5. feel more responsible--better able to get things done;
6. better understanding of own values and interests, strengths, and weaknesses; and
7. able to look at "shortcomings" constructively.

In response to the question, "What changes would you make?" students made the following suggestions:

1. reduce paperwork for students; forms were too time-consuming, tedious, and repetitive;
2. orientation should provide more direction, better guidelines (it takes too long to find out how the program works and what is expected of students);

3. mid-year changes were sometimes difficult to cope with;
4. all students should meet at the FWS center every day for better communication, to be more "together";
5. advisors seemed overworked, with not enough time to spend with students;
6. FWS curriculum needs more practical (hands-on) experience; and
7. advisors should have more contact with RPs.

Advisor Ratings. At year's end, the student advisors (none of whom participated on the staff teams interviewing students) were asked to complete a student rating scale for each of their students. (In several cases where a student had established a close relationship with a second staff member as a "technical advisor," that person was asked to complete the scale for the student.) This rating scale required 23 judgments on issues discussed in the interview, and in toto covered the major outcomes or processes of the school experience. Each judgment was made on a seven-point scale, with the end points labelled "Not at All" (rating of 1) and "Completely" (rating of 7); the mid-point was labelled "Moderately" (rating of 4). Data from these scales are presented separately for two groups of students: 12 who were in Far West School for a full year; and 15 who were in the school only one semester. A copy of the rating scales with the means and standard deviations for each group is included in Appendix F.

Given the fact that the ratings were completed by FWS advisors who had been directly involved with each of the students over the course of the year, it seemed necessary to establish some standard for interpreting these ratings. Essentially, it was agreed that if the FWS was to be judged

as having achieved certain positive outcomes, on the average the students should have been judged to have attained the outcome at a "moderate" level of higher. However, since the data for these particular 27 students were of value only as they had implications for future students, this standard of a mean rating of 4 or higher was insufficient. The actual standard chosen was the rating of 4 plus two times the average of the standard errors of the means for each rating scale for each group (statistically significant at the .05 level). This resulted in the requirement that the mean for an item had to equal or exceed 4.8 for both groups of students (one year or one semester), in order to conclude that the item indicated a positive outcome from the FWS experience. The same rationale was applied to choose the standard of 3.2 as the indicator of a failure to achieve a desired outcome from the FWS experience. Since the raters had been directly involved with students in the program, the overall level of their ratings may be spuriously high.

The distribution of item means is shown in Table 7 on all 23 ratings for the two groups of students. Two horizontal lines representing the standards discussed in the preceding paragraph have been drawn to show the number of positive and negative outcomes as reflected in the ratings.

Data in Table 7 indicate that for the students in the One Year Group, 16 of the mean ratings exceeded the statistical standard set as indicative of positive outcome; there were 13 such ratings for the One Semester Group. However, since the mean rating had to exceed the statistical standard in both groups in order to conclude that the FWS had achieved a desired outcome, the results identified eight positive indicators of outcomes and three indicators of failure to achieve desired outcomes. The standards used

Table 7

Distributions of Mean Ratings of Students by Advisors on Twenty-three Student Evaluative Scales

Mean Rating	Ratings of One Year Students	Ratings of One Semester Students
5.40 and above	1	1
5.20 - 5.39	2	1
5.00 - 5.19	8	5
4.80 - 4.99	5	6
4.00 - 4.79	3	5
3.20 - 3.99	1	1
3.00 - 3.19	1	0
2.50 - 2.99	1	1
2.00 - 2.49		2
1.50 - 1.99	1	
1.00 - 1.49		1
	23	23

Note: Because the distribution of means was negatively skewed, unequal interval sizes were used to limit the size of the table.

are, of course, quite stringent, in order to minimize a possible bias in favor of the school. They may, therefore, underestimate the effectiveness of the school.

The eight rating scales indicative of achievement of desired outcomes are:

To what extent has the student decided on his vocational goals?

To what extent has the student learned to make decisions for himself/herself?

To what extent has he/she become an active learner?

To what extent was the Far West School a growth or maturation experience for him/her?

To what extent was the student's evaluation of the Far West School experience more favorable than for Oakland Public School experience?

To what extent has the student effectively utilized the freedom offered by the Far West School?

To what extent did the student's interaction with RPs lead to in-depth experiences?

To what extent has the student learned about his own abilities, interests, and values?

The three ratings scales indicating failure to achieve desired outcomes are:[2]

To what extent has the student found the LEO a positive learning experience?[3]

To what extent has the Far West School experience improved the student's:

(a) reading habits?
(b) math skills?

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[2]See Appendix F for list of items falling in the "doubtful" interval.

[3]The section on Learning Resources indicates generally positive evaluation by the small number of students who participated and by their monitors. The small number participating in the LEO experience undoubtedly accounts for the low mean rating on this item, since the means were based on all students in a group, rather than on those who had been LEO participants.

In summary, these ratings of students indicate that the FWS experience, at least in the opinion of their advisors, helped the students make decisions about vocational goals using knowledge of their own abilities, interests and values, and that the students became more interested in active participation in learning and became more mature. They also indicate that the students saw the FWS experience as preferable to the conventional school, made good use of the increased freedom that the FWS permitted, and were able to capitalize on the opportunity to work directly with adults.

However, the ratings also imply that the program failed to improve students' reading and mathematics skills, and also that the students, as a group, did not find working with LEOs a positive learning experience. While advisors were not involved in workshops aimed at improving basic skills, the low ratings they assigned to the basic skills area may well correspond to a relatively low level of program attainment. The low mean rating (mentioned in the footnote on the preceding page) on LEO experiences may reflect the lack of contact with LEOs by most students.

Parents' Responses to Program. At the end of the school year, 17 parents were personally interviewed to assess their perception of the effect of the FWS experience on their children and their attitudes toward the program. Records of their responses have been tabulated in categories and are summarized with examples below:

Overall impression of Far West School:

- Positive response 15
- Neutral response 2
- Negative response 0

Neutral responses were "doesn't know enough" and "good idea, may get better in time." Sample positive responses:

- First time eager to go to school.
- More interested in learning, works harder, handles self better, enjoys being with adults more.
- Working much harder--actually working to learn. Never has done so much reading in her life.
- Now will go anywhere to find out what she wants to know; before, wouldn't.
- He's become another person at home, more alive than he's been since he was a child.

What is liked:

- Methods of FWS operation 16
- Positive change in student attitude/behavior 11
- Student treated like adult 10
- Student can explore interests 8
- What student has learned 6
- Staff responsiveness to students 6
- Learning in community setting 4

- Low staff/student ratio 1
- Other 3
- No response 2

Responses include: "learning for herself vs. to please teachers or for a grade"; "(Student) is easier to live with--feels this because of his being treated like an adult"; and "opportunity to explore careers at close range."

What is disliked:

- Poor staff communication with parents 5
- Student too free (needs more monitoring) 4
- Student hours irregular 2
- Other 4
- No dislikes 1
- No response 3

Responses include: "not knowing for sure what (student's) hours would be from week to week, didn't mind because saw how busy he was most of the time"; "too easy for students to cut"; "too much time lost in transit from place to place" from father, and "but he's learned to get around by himself much better" by mother; and "should be more minority students."

Suggestions for change:

- None 5
- Closer communication and involvement with parents 4

- Other 5
- No response 3

"Other" responses include: "get parents involved -- field trips, possible Resource Persons, finding Resource Persons"; "diploma should be issued by FWS, not Oakland Public Schools"; and "more minority students."

Understand FWS?

- Yes 11
- No 5
- Not sure 1

The interviewer noted that three who said yes seemed to understand the basic concept but knew little about actual program operations. Responses include: "Yes. (Student) talked a lot about it, never had much to say at home about anything before"; "not yet, meetings such as this help"; and "(Student) has explained in great detail."

Effect on child:

- Positive responses 15
- Negative responses 0
- No effect responses 2

The "no effect" responses are "nothing special" and "no visible changes."

Tabulation of specific effects show the following:

- More responsible 14
- More confident 14

- Clarified career interests, future goals 14
- No response, no change 3

Encourage, allow, forbid?

Parents were asked if they had it to do again, would they encourage, allow or forbid a student to attend FWS. Their responses show:

- Strongly encourage 8
- Encourage 7
- Probably allow 1
- No response 1

Responses in the "strongly encourage" category include: "Wish my child had three years instead of two"; "Wish studeht could have started as sophomore"; "trying to enroll two younger children"; "want to enroll younger son"; and "one of the best things to ever happen to (student)."

Parental support is a resource sought by most public school systems. It is especially important for a developing alternative school program. One indication of parental support is through willingness to serve as Resource Persons or on parent groups.

Willing to be a Resource Person?

- Yes 8
- No 1
- No response or maybe 4
- Volunteered for parent group 4

Responses include: "Yes, tennis instructor"; and "Maybe, I don't have much education."

School Opinion Scale. It was expected that the marked difference between the FWS experience and the experiences students had previously in the public schools would be reflected in students' attitudes toward school in general. In order to test this expectation, twenty-eight rating scales were constructed by pairing opposite adjectives that might be used by students to describe school. The complete instrument is presented in the Appendix G.

Students were asked to express their opinions of school by checking one of the points on a seven-point scale between the opposite adjectives. The seven points were weighted from -3 (quite negative about the school aspect) through 0 (presumed neutral or indifferent to the school) to +3 (quite positive about school). In form, this is similar to a Semantic Differential measure, but unlike the conventional use of the Semantic Differential, only a total score for each student was obtained by summing the ratings over all 28 scales. Since scores on a given scale could range from -3 to +3, the total score could range from -84 to +84.

The scale was administered twice to each of two groups (in FWS full year vs. one semester). The full school year group completed the scales about the middle of the first semester, and at the end of the year. The one semester group completed the scales at the beginning and end of the semester they were in the school. Not all students completed the scales both times. Table 8 presents pretest score distributions for all the students in both groups combined, and a separate distribution of the pretest scores for those students who also completed the posttest. It can be seen from Table 8 that the pretest scores are predominantly

Table 8

Distributions of School Opinion Scale Pretest Scores for All Far West School Students and for Students Who Also Completed the Posttest

Pretest Scores	All WS Students		Students Completing Pre- and Posttests	
	No.	*%*	*No.*	*%*
10 and above	3	10	1	5
0- 9	3	10	2	10
-10 -1	3	10	1	5
-20- -11	5	17	3	14
-30- -21	7	23	6	28
-40- -31	2	7	2	10
-50- -41	3	10	2	10
-60- -51	4	13	4	18
	30	100	21	100

negative. Table 8 also shows that while about one-third of the students who completed the opinion scales near the beginning of the FWS experience did not complete them at the end of the year, there is no evident bias in the group for which pre- and postdata are available.

The data for the 21 students who completed the opinion scales twice are presented in Figure 1 in the form of a bivariate plot of the pre- and postscores. Data points in this table are presented for ten students who were in school for one year (labelled A) and for eleven students who were in the school for only one semester (labelled B). The mean scores for these two groups also are shown.

It is evident from Figure 1 that there was an important shift in opinion for both groups during the course of the FWS experience. Initially, only three of 21 students were positive in their opinions about school, but by the end of the year, 20 of 21 were strongly positive.

Since the concern of the school is with individual students, the important test of the significance of this change is not so much in the mean change as in the individuals. Thus, a solid diagonal line has been drawn representing an estimate of the level of posttest scores required to indicate a statistically significant (P = .05) positive shift in the opinions of the individual students.[4] The broken diagonal line shows points of zero change from pre- to postobservation.

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[4]The statistical significance of a score difference for individual students is derived from the standard errors of measurement for the pre- and post-measures. The standard error of measurement for difference scores is the square root of the sum of the two (pre and post) variance errors of measurement. The statistical criterion was established using twice the standard error of measurement for the difference scores. This approach is similar to that recommended for the interpretation of difference scores in the manuals of several standardized tests (SCAT, STEP). (Continued on Page 76.)

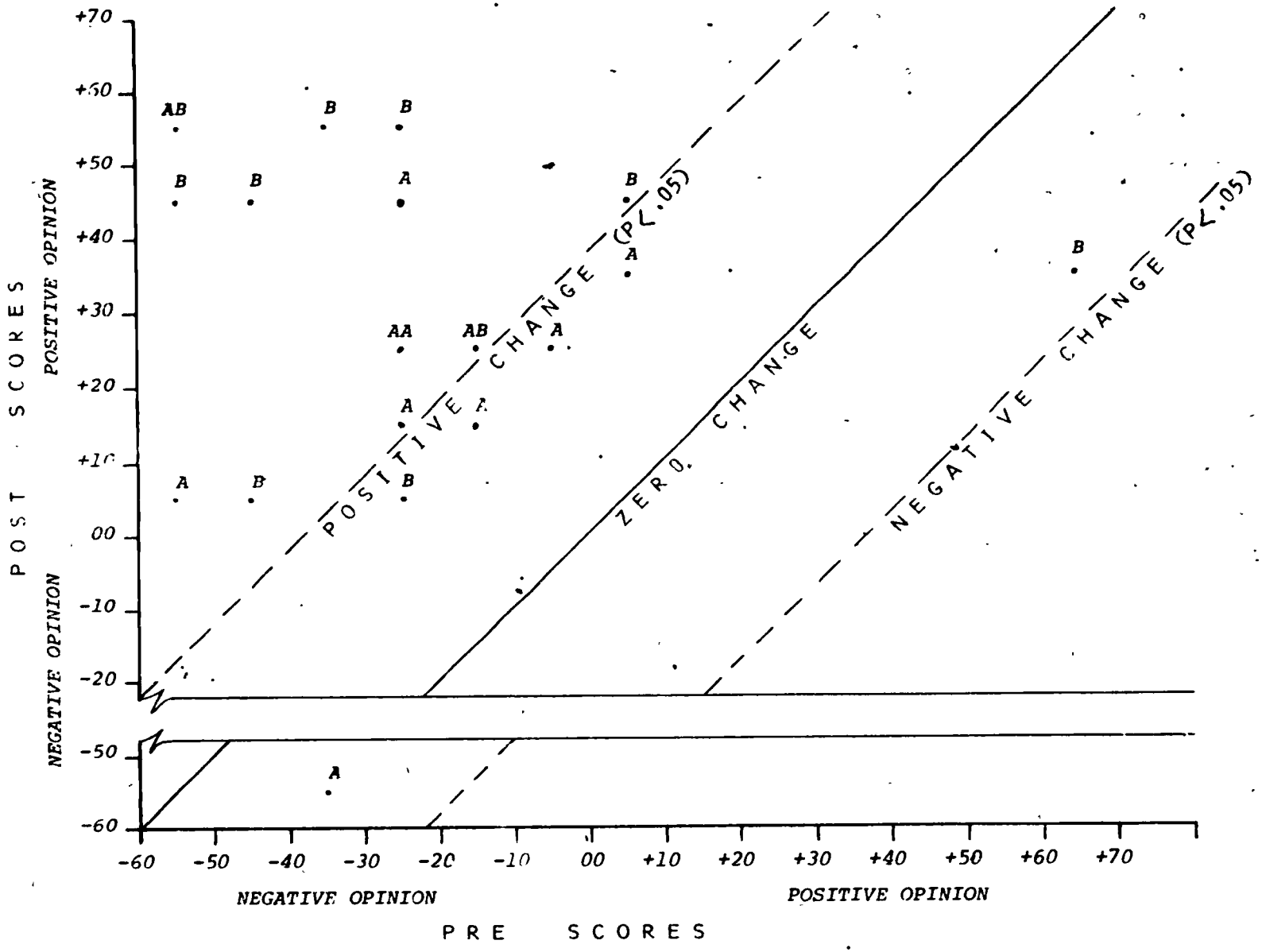

Figure 1. Joint distribution of pre- and postscores on school opinion scales. ("A" represents an individual student who had been in FWS for a full year; "B", a student who had been in for one semester.)

The data in Figure 1 indicate several important facts.

1. Only two of the 21 students showed an actual negative change in opinion.
2. Two-thirds of the students showed positive changes large enough to meet the statistical significance criteria for true changes in opinion. The sign test for this percentage is significant well beyond the .001 level; a sign test for an observed zero difference would be even more significant.
3. Although the distributions of the pre- and postopinion scores make a test of the means inappropriate, the criterion applied to individual scores is so stringent that a statistical test of the means, if it were appropriate, would be highly significant.

In summary, the data from these scales of opinions about school in general show that the experience in the FWS served to change the student opinion about school from negative to positive. This appears to be true whether the experience in the FWS lasted for one semester or one year.

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[4](Continued from page 74.) The standard error of measurement is a function of the standard deviation and the reliability of the measure used. In this instance lack of sufficient data prevented the determination of an estimate of reliability. It was necessary, therefore, to guess at what the reliability might have been if it could have been obtained. A reliability estimate of .75 was used in arriving at the criterion level of significant change in individual opinions. Although this is a guess, it seems reasonable in light of the number and nature of the opinion items.

CAREER DEVELOPMENT SKILLS

The term career development skills includes the knowledge, skills, and attitudes needed for career entry, advancement, mobility, and adaptation. Career development skills focus more specifically on those behaviors needed to acquire information about careers and about oneself, to integrate personal and career information in making informed career decisions, and to pursue one's career goals by effectively seeking and obtaining employment or gaining admission to postsecondary education programs.

Student Interviews. It has been found that students can learn a great deal about the characteristics and requirements of specific jobs from their discussions and interactions with Resource Persons and employees of Large Employer Organizations. In the end-of-year interviews, most students described the jobs of people they have visited not only in terms of tasks performed but also in terms of the degree of supervision received or independence allowed, working hours, security of position, and so forth. Most students were also able to describe the requirements of various positions including, for example, the education required, whether one must enjoy or excel at working with people, and whether union membership is required.

On the basis of first-hard exposure, and citing specific reasons, some students explained why they were no longer interested in pursuing careers in veterinary medicine, radio broadcasting, business, chiropractics, forestry, and stenography, others how they had acquired new career interests

in oceanography, psychology, journalism; and others how they had expanded and refined interests in astrophysics, small business in crafts.

It was found that a number of students used their career exploration experiences not only to clarify their own career goals and learn more about their own interests, values, and abilities, but also to acquire considerable insight into what might be called the sociology and psychology of work. Almost all students were able to give examples of insights into people's differing motivations for and satisfactions derived from working.

Student Projects. It was apparent from assessing student reports and essays with individual projects that students had been able to demonstrate understanding of: related careers within a field, use of implements and facilities on the job, and subject areas and issues related to careers. These student reports and essays explained such items as:

- the history and function of computers;
- the roles and functions of all personnel in a printing shop;
- the roles of lawyers, prison officials, probation officers, etc., focusing on an investigation of the Ruchell McGee trial;
- the procedures, requirements and materials necessary to set up a small business in crafts;
- how a half-way house for out-patients functions; and
- the tactics of mayoral candidates, mass media coverage of

the election, related careers (e.g., campaign managers, city manager, and Oakland vote distribution according to sub-groups).

Super Career Development Inventory. This instrument was designed as a measure of "vocational maturity." Its three scales are: (a) planning maturity, (b) readiness for in-depth learning about one or more occupations, and (c) knowledge of how to integrate occupational information into educational/vocational decisions.

The inventory was administered in January and June 1973, as a pre- and postspring treatment instrument. The administration in January was accomplished satisfactorily, but in June the students reacted against taking it again. It was described as "irrelevant," "stupid," "foolish," "insane," and "repetitious" as well as by stronger terms. Several students refused to complete the instrument. Several of the completed questionnaires showed patterned responses that appeared to be independent of the content of the questions. Consequently, further analysis of these data was not attempted.

Table 9 summarizes the results of the January administration of the CDI to 28 students and compares the range, mean, and standard deviation for the Far West group with those of the publisher's normative sample. The only appreciable differences between the two groups appear for Scale B, on which the Far West School score was higher than those of the norm group. Thirteen of 28 Far West students scored at or above the 85th norm-group percentile. According to the CDI manual, high scores on Scale B indicate readiness for in-depth learning about occupations. Performance on this scale by the Far West students may reflect the fact that 13 of the 28

Table 9

Career Development Inventory Statistics for Far West School Students and for Publisher's Normative Sample

Scale	Observed Score Range	Mean Score	Standard Deviation	No. of Cases
Scale A *(33 items)*				
FWS Students	62 - 149	103.9	22.7	28
Norm Sample	33 - 165	103.6	19.2	400
Scale B *(28 items)*				
FWS Students	166 - 402	264.9	58.4	28
Norm Sample	86 - 430	237.5	45.5	400
Scale C *(30 items)*				
FWS Students	5 - 27	17.9	5.2	28
Norm Sample	0 - 30	17.2	4.6	400

Scale A: Planning maturity
Scale B: Readiness to learn about specific occupations
Scale C: Use of information in making decisions

had completed one semester in the program, or it may indicate that students attracted to a program emphasizing career exploration are atypical with respect to readiness for occupational learning.

Job Information Questionnaire. A pilot effort was made to assess the knowledge students have about jobs by administering a staff-constructed "Job Information Questionnaire." In this instrument, each student was asked to answer questions about the single job about which he was most familiar. Primary emphasis in the design of this instrument was to engage the interest of the students, since progressively increasing resistance to testing was being encountered. Therefore a single, familiar, job was selected as the focus of all the questions. The test was administered in June, 1973.

Data analysis was not performed for the following reasons:

a. While the instrument did capture student interest, it did not collect information of sufficient breadth to hold promise for differentiating between students in and students out of the program. That is, restriction of information to a single job hindered measurement of growth attributable to the EBCE program, and there was little opportunity in the instrument to demonstrate breadth of job knowledge (an objective of EBCE, facilitating career-choice.)

b. There were no pretreatment data on the extent of job-knowledge of entering FWS students.

c. There were no data on other groups for comparison.

The instrument is shown in Appendix H. It would require fundamental revision to be of use in the program as an evaluative instrument.

LIFE SKILLS

Life skills are defined as: "Necessary behaviors which help individuals to relate effectively with the economic sector and other life roles in a personal and self-fulfilling manner." There are two kinds of life skills: (a) fundamental coping skills, generalizable across economic, social, academic, and other life situations; and (b) those which cover important domains of knowledge and skills and which have traditionally been called "subject areas." FWS is focused principally on growth in the following core skills:

1. Interpersonal skills
2. Inquiry skills
3. Problem-solving skills
4. Decision-making skills

The other life skills, considered program electives, are those skills that:

1. Satisfy Oakland Public Schools graduation and college entrance requirements.
2. Enable students to develop a sense of personal competence in dealing with a variety of situations, processes, and issues in a complex, rapidly changing environment (e.g., knowing how to buy, vote, make things, etc.).

3. Enable a student to develop those interests and skills (which may or may not impinge on a chosen career) necessary to pursue a life role in a "personal and self-fulfilling manner." (Many individual's primary sources of life satisfaction fall outside the realm of their chosen career: e.g., political activism, avocation in science or painting, etc.).

These elective life skills include:

1. Physical Fitness and Health
2. Social-Cultural Awareness (history, work studies)
3. Political Awareness
4. Economic (consumer) Competence
5. Technological Skills
6. Aesthetic-Creative Development
7. Mathematics (transcending basic skills level)
8. Science
9. Social Science
10. Foreign Language

On the basis of staff observation, and student, parent, and RP interviews, it was concluded that growth in the core life skills, especially interpersonal and problem-solving skills, is intrinsic to the relationships EBCE creates between students and adults. Having to phone RPs and make appointments, go out and meet them, ask questions, negotiate and complete tasks with them, virtually guarantees that students will become

more adept and confident in dealing with different kinds of adults in a variety of situations, and in solving problems as they arise on a day-to-day basis. Some students learned how to cut through bureaucratic red tape, others to control their temper. Almost all felt more at ease and capable in the "outside world."

During end-of-year interviews, students were able to illustrate with examples claims like the following:

- Before I came here I was scared to go out and meet people. Didn't say much because I believed people thought I was dumb. Now I'm much more confident. I not only learned how to ask questions of RPs, I learned how to ask the <u>right</u> questions. They treat me like an adult.

- I'm better at anticipating a person's reaction. Not as a put-down, but to let him know I'm on the same wave-length.

- Resource Persons expect you to follow through on commitments made and treat you with mutual respect. I'm much more open to people, not as shy as I used to be. I've learned not to talk off the top of my head with the Resource Persons, I take my time and think before speaking.

- More comfortable and confident in interacting with people out in the world--I was put in situations where I had to do it.

- I learned how to initiate contacts with Resource Persons, how to talk to adults and ask questions; much less shy, more

confident. Learned how to work around and cut through red tape. Feel more comfortable expressing myself.

- In school when you're "wrong" people laugh at you or you get an "F" or teachers seem bored with what you say. With Resource Persons you're not "wrong" if you make a mistake, you're allowed to learn from it and not feel foolish. Because of the pressure in high school to be "right," I never talked unless forced to. Now I am much more willing to ask questions and make suggestions.

- In high school, there's just the same little group of people, same types. This program gives you the chance to go out an really talk to people, be exposed to many ideas and different values. I've learned how to cope with people, avoid hassles. I used to get up-tight about certain kinds of people, now I let it roll off my back.

Several techniques were used both to prepare students for their encounters with adults and to foster growth in various coping skills after they began to apply them. But students and staff felt that observed change in their confidence and ability to meet and deal with people was primarily the result of "being put in situations where you had to do it." In other words, this year's experience supports a key assumption underlying the EBCE concept: the way to learn how to interact with adults is to interact with them.

Although we did not prearrange learning activities with specific objectives in problem solving or interpersonal skills, RP and LEO sites were

analyzed for their potential in exercising these skills through the kinds of tasks and responsibilities required of a student, and through the particular kind of relationship he would have with an adult there. The major instructional technique was simply to provide students with learning experiences that would require them to use interpersonal, problem-solving, decision-making, and inquiry skills.

The following methods were used to support and supplement students' employer-based learning experiences to facilitate growth in core life skills:

1. A social skills workshop, conducted as part of the orientation phase, used forms of role playing to help students initiate contacts with adults, formulate questions, and anticipate the expectations of RPs and LEOs.

2. To help students in their initial interactions with Resource Persons, they were provided with a "Career Orientation Guide" form which provided questions they might ask and spaces to record answers. The questions focused not only on what the RP does, but also on such things as what he likes or doesn't like about the job and what it takes to get ahead in that career field. The guide also asks the student to evaluate the job against his own interests, values, and abilities. Several students reported that the guide was very helpful not only in talking with RPs but in conversing with other people in the community. One student said it helped her identify some more subjective or personal questions to ask which, she felt, enabled her to learn more about the person

as well as his job. The use of the guide was optional and its value as an aid could not be formally evaluated. Some such guide or set of questions which students can use to break the ice in their initial interactions with RPs should be available to students who would find it helpful. It would be preferable to get each student to develop his own set of interview questions for orientation sessions with RPs, so that he would feel natural asking them.

3. When a student occasionally encountered a problem in dealing with someone in the community (such as not knowing what kinds of questions to ask or receiving evasive answers), he simply took it to his advisor or another staff member, and through discussion identified methods for resolving or coping with the difficulty.

4. The communications workshop (which combined practice in communication, inquiry process, and problem-solving skills) was successful in helping students get at the essential techniques of dialogue: isolating and clarifying points and sources of conflict; resolving disagreement through more "objective" means, such as analogy, restatement, or probing questions; and listening effectively. One student noted that the communications workshop helped her improve her ability to accept and use constructive criticism: "I'm better able to take criticism; I don't see disagreement as a personal attack."

In one instance the workshop served as a forum for resolving a conflict between students and staff. The students were upset by a memo "forbidding" outside jobs that were not part of the program. The workshop treated it as a communication problem, sorted out the points of conflict, and explored both sides. The students then explained their position to the author of the memo, and through discussion all parties concluded that the memo had unintentionally misled the students, so the conflict was resolved.

Elective Life Skills. These are more concerned with academic or subject area activities and are covered, for the most part, in the packages that have been developed. Certain RP learning situations also provide opportunities to develop these life skills. For example, students learned about politics by working with a city administrator or a mayoral candidate. Students also developed many elective life skills through several RPs and LEOs: at Breuner's and Rhodes they developed economic competence; with an RP at a printshop they developed technological skills; at Western Laboratories they developed science skills. Students had the opportunity to develop foreign language competency at a CR, the Latin American Library. One RP, a bookstore owner, shared his avocational interests with a student while helping her with a project in the history of the 19th-century western frontier. He encouraged her to read Mark Twain and Jedediah Smith, which she incorporated into her project.

Both advisors and technical advisors provided counseling to the students on various life skills. Advisors tended to deal more with the required skills while technical advisors usually worked with students on

particular subject areas. In addition, students' projects blend both the required and elective life skills with basic skills and career development skills. Junior college courses also afford students the opportunity to develop elective life skills and some of the required life skills, particularly their inquiry skills.

BASIC SKILLS

Basic skills in the FWS curriculum are reading, writing, oral and media communications, and quantitative skills. During FY73 the intention was that students' field experiences would supply motivation to apply already acquired skills to solve real life problems, and thereby improve them through practice. Activities were built into students' projects which necessarily required them to gather information, perform on-site tasks, interpret and report findings, and produce written, oral, or visual products. The primary focus during FY73 was on recruiting and assembling learning resources and developing career and life skills in employer settings, therefore, it was necessary to supplement basic skills instruction with workshops at FWS, tutors, junior college courses, and other instructional material.

Four student workshops at FWS included basic skills instruction as a primary or secondary element: communications, math, photography, and interpersonal skills. Although not community-based, these workshops focused on students' experiences in the community and with employers whenever possible. The communications workshop was directly concerned with improving students' reading, writing, speaking, and listening abilities as applied to real-life situations. For students who were either at,

above, or just below the grade level in these basic skills, the workshop was successful in changing performance and attitudes. The math workshop, designed to help students with remedial needs in arithmetic, was phased out early due to staff termination. The photography workshop was concerned both with helping students learn vocational/avocational photographic skills and with preparing them to use visual media when reporting learning activities. The interpersonal skills workshop was directed in part to oral communication with Resource Persons. It used simulations with FWS staff members to improve students' speaking and listening skills when talking to RPs on the telephone and in person. In addition, the students were given ideas as to the kind of information they should seek during an RP interview.

Some students took junior college courses in English and math out of personal interest or desire to earn credits in courses required for college entrance. These courses were generally for students who were at grade level in the basic skills dealt with by the courses.

The FWS learning materials available to all students were supplementary and not required unless specifically assigned by the basic skills specialist, except that students were urged to include various kinds of reading in their projects.

Findings. In assessing student learning programs at the end of the year, it appears that the EBCE concept of fusion is feasible and workable. Little was learned about the quality of RP instruction in basic skills, but it was clear that theory and practice can be integrated in practical situations, and motivation can be increased when students employ basic skills to solve real rather than simulated problems. While the advisors' ratings

indicated they had observed little improvement in reading, student interviews indicated that 8 or 15 students were reading more than ever before and in new areas of interest. This was corroborated by parent interviews and workshop leaders. Students attributed this change in attitudes and habits to the fact that reading had become more "relevant" because they were seeking answers to real questions and pursuing genuine concerns, rather than complying with assignments. Students read materials suggested by RPs (e.g., books on silk-screening, unions, astronomy, radio broadcasting, ecology, commercial fishing, psychology).

Most students improved in oral communication through their interactions with adults in the community. In addition, many students had specific job-related practice in basic skills[5]: improving interviewing and writing skills through work with a journalist covering a political campaign, increasing comprehension when required to read a college level text as part of an experience in a medical laboratory, applying math when doing volunteer work in a church office, and improving verbal skills when working with a local sportscaster. Some learned new skills: reading and interpreting medical graphs and tables; how to use conversion scales (e.g. farenheit to centigrade); using a slide rule in a printing shop; and learning the rudiments of business forms design, window display, and salesmanship. But for the most part, such learning was fortuitous, not planned

[5]The Jastak Wide Range Achievement Test (WRAT) was administered for diagnostic purposes to all students at entry. This instrument provides measures in reading, spelling, and arithmetic. Although the diagnostic application of the instrument diminished its usefulness as a evaluation device, it was also administered post. A two-tailed t-test applied to the group scores did not indicate statistically significant differences in mean scores for any measure for the two administrations. Of the three, reading scores changed the most, but the difference was only significant at P = .10.

in advance, and not well monitored. A major problem was the difficulty in finding a basic skills specialist who could work with students in applying skills instruction to experiences in the community. This was especially true with math. The three skills specialists who were tried had difficulty coping with the notion of integrated, "real-life", (as opposed to classroom) learning.

CREDITS

The EBCE model is intended as an alternative design for learning, not a supplement to existing programs. This implies that students will earn units of credit equivalent to those earned in existing programs. The continuation schools in Oakland use a formula in which 15 productive hours of work (hours in the classroom or on the job) convert to one credit and ten credits equate to one Carnegie (or OPS) unit. This formula was adopted with the modification that student claims of hours spent in activities must be substantiated by student products. It was especially important during FY73 to insure that students would not lose credits toward graduation from their regular Oakland public high school because of their enrollment at FWS. Eight seniors did graduate from their regular high schools using FWS credits.

In Oakland Public Schools, students normally earn 2.5 to 3 credits per semester. For equivalent time periods, students earned a fraction less credit at FWS. A tabulation shows that for 13 students on whom complete data were available, the mean number of units reported for one year at FWS was 4.3, compared to 4.4 earned in the previous school year. Eleven students who attended FWS second semester only show a mean of 2.4 units reported, compared to 2.8 for the previous semester.

Considerable difficulty was encountered in translating student achievement at FWS into traditional school credits for specific subjects and in fulfillment of specific graduation requirements. Incompleteness of credit data is due in part to lack of transcripts for some students and transcripts from schools outside of the Oakland system which have different credit systems. Moreover, different schools within the Oakland system have different graduation requirements above the OPS district requirements.

Because the FWS program is individualized, assignment of grades must be criterion-referenced rather than based on a curve of group performance. The pass-fail grading method creates a problem of college acceptance of credits earned at FWS. One student's parents requested letter grades, and they were given.

LEARNING OUTCOMES RECOMMENDATIONS

Career Development Skills. Needs for supportive or supplementary materials and techniques to facilitate learning of career development skills are:

1. support of students' career explorations in the community with instructional materials and guidance tools;
2. built-in mechanisms to encourage students to verify and expand upon information received about careers by utilizing other available sources of information;
3. built-in mechanisms to encourage students to reflect upon

career information and experiences in relation to--and to learn more about--themselves;

4. support of students' career explorations with a conceptual framework and process for career decision making which will facilitate the development of (a) a positive orientation towards career planning and (b) the skills of integrating personal and career information in formulating educational and occupational goals; and

5. built-in objectives and mechanisms for incorporating career entrance skills into each student's program.

Life Skills. Standards and instruments need to be developed for assessing student growth in interpersonal skills, inquiry skills, problem-solving skills, and decision-making skills.

Preassessment rating forms, interview schedules, and other devices need to be developed for required life skills, especially for the core skills (e.g., the Watson-Glaser Critical Thinking Appraisal as a pre- and postassessment of students' inquiry skills). Rating forms need to be developed for RP and LEO employees' assessment of student performance in the core life skills areas.

Basic Skills.

1. Need to develop and refine procedures for monitoring students' progress in basic skills, e.g. a checklist to determine student growth on basic skills goals.

2. Since a separate program for basic skills will not be developed, basic ~~skills activities and objectives~~, as appropriate, need to be built into all individual projects and learning packages. Guidelines for use and incorporation of basic skills objectives and activities into student projects need to be provided to advisors.

3. A basic skills specialist suited to EBCE is needed on the permanent staff to assist students who need special or remedial help.

4. Need to identify and catalog RPs, CRs, and LEOs where students may use and further develop their basic skills.

Credits.

1. Strengthen liaison with records offices in OPS schools to assure timely receipt of transcripts and acceptance of FWS-assigned credits.

2. Recruit or train a student records assistant for the Operations component.

3. Require each new student to consult with a counselor at the school of origin for a review of his own record and list of requirements which he still must complete to qualify for graduation.

4. Negotiate with registrars in the state college system for acceptance of FWS credits with pass-fail grading and substitute documentation (e.g. student portfolio, college entrance test scores) of student performance.

Internal

During 1972-73, the Program Director, Director of Development and Operations, Director of External Relations, Director for Information Systems, and Director of Evaluation formed the principal decision-making body of the Far West EBCE Program. This group met weekly to discuss problems, to propose possible solutions, and to effect major program decisions. Each director also was authorized to make decisions in his area of responsibility. This decision-making structure was not completely effective. Three weaknesses in the system were:

1. no formal provision for anticipating problems or facilitating trouble-shooting;
2. program modifications frequently occurred without documentation; and
3. insufficient dissemination of decisions to staff other than immediate users.

As procedures were not in operation to perform predictive analysis of likely system flow, management had little chance to anticipate problems before they occurred. Instead, when problems arose, operations were slowed until solutions were developed and implemented. The combination of Development and Operations into a single administrative component tended to encourage verbal communication and inhibit the documentation necessary for internal flow of information regarding program revisions. Often, only those staff members immediately involved knew of action taken, and documentation for the information systems or evaluation sections did not occur.

It is evident that a well-defined management information system within the FWL model is needed for the following reasons: (1) to assure adequate communication necessary for management decisions, (2) to coordinate within the overall system the evaluative information generated for program element revision, and (3) to provide the documentation necessary to assure technical replicability.

External

Liaison with the Career Education Development Task Force of NIE has been largely the task of the Program Director, assisted by the Communications Director and the Director of Evaluation. This method of communication has not resulted in as effective an information exchange as will be required during the next year. Too often, needs for clarification or modification of NIE/EBCE model policy have arisen and not been communicated by FWL because of the press of other operational activities. There is a need for more frequent and direct interaction between NIE-CEP staff and their appropriate counterparts in the FWL-EBCE staff.

Development and evaluation suffered during the year because of very heavy demands for external reporting and coordination. Preparation for site visits, quarterly reports, ARIES[6] coordination, and innumerable drop-in visits by various agencies consumed inordinate amounts of staff time. These demands were not necessarily excessive; rather, the problem seemed to be one of internal organization and scheduling. Improved forward planning by NIE-CEP, combined with staff restructuring within FWL-EBCE, are expected to alleviate this problem during the coming year.

[6]ARIES Corporation, under direct contract with NIE, performed "antecedent analyses" and legal studies involving the various model-development sites.

During the first half of 1972-73, liaison with the business community was less efficient and effective than desired. Three factors improved this situation during the latter half of the year: (1) the services of a local business consultant, (2) introduction of the direct participation of business organizations per se in the educational program through LEOs, and (3) establishment of an active Policy Advisory Board.

Communications between the Far West EBCE Program and the parent Far West Laboratory was frequent and at several management levels. The Program Director holds membership on the Laboratory Program Review Board chaired by Far West Laboratory Director, John Hemphill. This group meets monthly for information exchange. The EBCE Program Director also meets weekly with management staff of FWL Division II (Educational Systems) for coordination and exchange of information among the several FWL programs related to this administrative division. Each component director within the EBCE model prepares a monthly narrative report to the FWL Division II director which serves further to inform FWL management of the program status. Several Laboratory management staff are used as internal consultants in the areas of instrument design, data interpretation, and reports organization.

No major problems were encountered in the area of financial planning and cost control. Actual costs for the program as a whole appear now to have run about 1-2% below original estimates. Some reallocation of funds within the program was necessary during the year because of underestimates of equipment and consulting requirements.

Operating costs were analyzed for the three-month period from February 1 to April 30, 1973. This period was selected as a basis for cost projections because: (1) new students entered in February, thus requiring the full cycle of operations to be conducted, including orientation, diagnosis, and initial

program planning, and (2) this was a period of relative stability for the operating model. Operating costs for the three-month period with projected annual per-pupil costs are shown in Table 10. Projected costs for student enrollments of 40 to 200 are displayed in Table 11. Estimated staff requirements with salaries and benefits on which these projections are based are shown in Tables 12 and 13.

Costs to prepare resources prior to program operation are estimated in Table 14. Preparation and operating costs absorbed by participating individuals and organizations were not determined and are not included in these estimates.

Wherever we were able to identify procedural or other modifications that might lead to cost reductions without significant loss in effectiveness, these modifications were tried out. Most notable is an early revision in our procedures for analyzing and preparing learning opportunities with RPs. Our initial procedures required extensive on-site involvement of development personnel. We found that by providing explicit guidelines and data forms for site analysis, students could perform a significant proportion of the necessary analysis and preparation. Students were also capable of and enthusiastic about recruiting new RPs. This revision in procedures resulted in significant reductions in required staff time and had no apparent effect on the quality of resulting learning resources. The recruiting and analyzing activities by the students were, in fact, additional, and apparently valuable, learning experiences.

TABLE 10. OPERATING COSTS FOR 3-MONTH PERIOD, FEBRUARY 1 TO APRIL 30, 1973 (30 STUDENTS)

	INDIVIDUAL PROGRAM PLANNING	WORKSHOPS/ SEMINARS	ADMINISTRATIVE SUPPORT	STUDENT DIAGNOSIS		TOTAL OPERATIONS
				TESTING	SELECTION	
Salaries & Wages	$ 3,236	$ 3,829	$ 5,481	$ 118	$ 5,247	$ 17,911
Benefits	1,035	1,210	1,564	38	1,672	5,519
Other Pers. Services	1,300	2,485	194	1,402		5,381
Travel & Per Diem	99	44	375			518
Communications			369			369
Rent (Non-Instit.)			2,500			2,500
Other Services	59	620	339			1,018
Media Services		574	1,350		75	1,999
Supplies/Materials	145	74	1,167	42		1,428
TOTAL DIRECT	$ 5,874	$ 8,836	$ 13,339	$ 1,600	$ 6,994	$ 36,643
G & A @ 27%	1,586	2,386	3,601	432	1,888	9,893
TOTAL COSTS	$ 7,460	$ 11,222	$ 16,940	$ 2,032	$ 8,882	$ 46,536

ACTUAL COSTS FOR QUARTER = $ 1,551 per Student

PROJECTED ANNUAL COSTS = $ 4,653 per Student

TABLE 11. PROJECTED OPERATING COSTS

	Projected Costs for Student Body of 40	Projected Costs for Student Body of 200
Salaries & Wages	$ 96,250	$ 226,450
Benefits	17,102	41,942
Other Pers. Services	1,500	3,000
Travel & Per Diem	1,400	1,900
Communications	820	820
Rent (Non-Instit.)	10,000	10,000
Other Services	1,450	1,900
Media Services	225	225
Supplies/Materials	1,585	2,810
TOTAL DIRECT	$ 130,332	$ 289,047
G & A @ 27%	35,190	78,043
TOTAL COSTS	$ 165,522	$ 367,090
Cost per student per year	$ 4,138	$ 1,835

TABLE 12: ESTIMATED STAFF NEEDED TO OPERATE A SCHOOL OF 40 STUDENTS

	LEVEL	SALARY	BENEFITS
DIRECTOR	VII-B	$ 17,850	$ 3,570
ADMINISTRATIVE ASS'T	IV-A	9,500	1,140
SECRETARY	LII-B	7,850	942
SENIOR ADVISOR A	VI-C	15,400	3,080
ADVISOR A	V-D	13,150	2,630
ADVISOR B	V-A	11,500	2,300
LIBRARIAN	IV-A	9,500	1,140
DIAGNOSTICIAN *(Basic Skills)*	V-A	11,500	2,300
		$ 96,250	$ 17, 02

TABLE 13: ESTIMATED ADDITIONAL STAFF NEEDED TO OPERATE A SCHOOL OF 200 STUDENTS

CLERK TYPIST	III-A	$ 7,500	$ 900
CLERK TYPIST	III-A	7,500	900
SENIOR ADVISOR B	VI-C	15,400	3,080
SENIOR ADVISOR C	VI-C	15,400	3,080
SENIOR ADVISOR D	VI-C	15,400	3,080
ADVISOR C	V-A	11,500	2,300
ADVISOR D	V-A	11,500	2,300
ADVISOR E	V-A	11,500	2,300
ADVISOR F	V-A	11,500	2,300
ADVISOR G	V-A	11,500	2,300
ADVISOR H	V-A	11,500	2,300
		$ 226,450	$ 41,942

TABLE 14: ESTIMATED COSTS TO PREPARE RESOURCES PRIOR TO PROGRAM OPERATIONS

	RESOURCE PEOPLE (113)	LARGE-EMPLOYER ORGANIZATIONS (6)	COMMUNITY RESOURCES (87)	ADVISORY BOARD	INSTRUCTIONAL MATERIALS	TOTAL PREPARATION COSTS
Salaries & Wages	$ 6,582	$ 1,326	$	$ 2,130	$	$ 10,038
Benefits	1,745	403		730		2,878
Other Pers. Services		3,500	1,827	1,000		6,327
Travel & Per Diem	565	168		113		846
Communications				55		55
Other Services				23		23
Media Services				7		7
Supplies/Materials				7	5,796	5,803
TOTAL DIRECT	$ 8,892	$ 5,397	$ 1,827	$ 4,065	$ 5,796	$ 25,977
G & A @ 27%	2,400	1,457	493	1,098	1,565	7,013
TOTAL COSTS	$ 11,292	$ 6,854	$ 2,320	$ 5,163	$ 7,361	$ 32,990

Total estimated cost per RP (detailed analysis): $ 104

Total estimated cost per RP (general analysis): $ 97

Total estimated cost per LEO (Range: $286 to $2,441): $ 1,142

Total estimated cost per CR: $ 27

Total estimated cost per student--selection & diagnosis: $ 393

SUMMARY AND CONCLUSIONS

In summary, the first year of operation, beginning in September, 1972, was devoted primarily to the fabrication of an operating program. Resources were assembled and organized; an operations staff was trained; guides were developed; baseline data were obtained on entering students; forms and procedures were developed and used in collecting formative data; and specific procedures and materials were applied and revised on the basis of their workability and effectiveness.

The first year of program operation can be thought of as the conclusion of the feasibility studies that began in 1971. The year's experience has verified that the Far West design can be operationalized: that parents and students endorse it, that local school officials will accept it, and that individuals and organizations in the public and private sectors will participate in its operation.

The following summary statements represent some conclusions reached by the Far West staff.

1. Based on FWL experience, the cut-and-fit process is an effective way to develop an educational model as complex and innovative as EBCE, where curriculum content, standards of achievement, and methods for integrating system components cannot be predetermined. Design, implementation, operation, and revision occurred concurrently in a very compressed time frame. The presence of full-time students placed a strain on the development process, so that it was not always preplanned, orderly, and well documented. But these

disadvantages were outweighed by the advantage of direct and early feedback from the users and clients (operations personnel and students) and community participants (schools and employers). The approach exposed the myriad of practical problems--technical, administrative, and logistical--inherent in a complex unconventional system, and it ensured that workable solutions were found. While the use of students as collaborators in development seems essential, it probably would be more desirable to use part-time rather than full-time students during the first year.

2. Most students are not ready when they leave regular school to enter the adult world, accept freedom, and take advantage of their learning opportunities. They are used to being told what to do and find it difficult to act on their own initiative. Most students must be phased into the process of making and assuming responsibility for their own decisions.

3. Once the adjustment is made, students respond positively to the opportunity to plan and carry out their learning programs. Being treated like adults and having the freedom to pursue genuine interests and to make their own decisions enhances self-confidence, increases motivation to learn, and further develops a sense of responsibility.

4. Parents like what they perceive to be the effects of EBCE on their children, including improving students' interest, awareness, and outlook as well as their motivation, self-confidence, and sense of responsibility.

5. Substantial learning can occur in work places and other non-school locations when motivated young people are placed with motivated adults. The functional context of everyday life can supply "relevance" by integrating theory and practice, making apparent the utility of "academic" knowledge and skills through applying them to practical problems, and breaking down artificial boundaries between areas or kinds of learning.

6. The state of the art of evaluation is not yet entirely sufficient for evaluating a program focusing on performance-based, individualized, and integrated learning.

7. Most instruments developed for skills measurement are related to the traditional educational setting. Assessment of progress within the EBCE setting requires construction of new measuring instruments, a difficult and time-consuming process.

8. The experimental nature of the school places exceptional requirements on students for data-gathering (filling out forms, taking tests, and serving as subjects for interviews) that tend to interfere with the learning process. The problem to be solved is how to satisfy the need for student accountability without dampening student incentive.

Despite such impediments to evaluation as 6, 7, and 8, during the year some systematic data was gathered, observations were made, insights were articulated, and a substantial amount of learning took place about the program. The following is a summary of the recommendations derived from the evaluation findings contained in this report.

Learning Resources

1. Develop a program description and detailed operating manual for RPs designed to guide their work with students in general.
2. Provide students with a format or mechanism for communicating to an RP their own individual reasons and objectives for working with the RP.
3. Develop mechanisms for having RPs evaluate student progress and achievement i. terms of the student's own objectives and in terms of growth in communications, problem solving, and interpersonal skills.
4. Develop procedures and instruments to facilitate and assure regular contact between FWS operations staff and RPs.
5. Further define and explore the feasibility of RPs serving as technical advisors on student projects, involving them in both planning and evaluating student projects with the students.
6. Develop mechanisms, procedures, and descriptive material which will increase union support in obtaining Resource Persons who are either union members or employees of unions.
7. Revise and validate guides, questionnaires, and instruments used to provide systematic feedback from students and monitors on LEO experiences.
8. Develop procedures for working with LEO officials to make changes in activities when student and monitor feedback indicates a need for change.
9. Develop means of making student experiences at LEOs more interesting and worthwhile in terms of learning achieved. Specifically,

obtain LEO agreements to provide students with more in-depth hands-on kinds of learning activities. Develop learning packages providing students with guidance and suggestions for problems and issues they can investigate at LEOs.

Student Program Planning and Monitoring

1. The "freedom shock" students experience upon entering EBCE requires a more effective orientation period, in the following ways:

    a. Start with structured initial experiences and increase flexibility as students become ready to manage more freedom.

    b. Provide initial workshops on project planning procedures.

    c. Conduct regular advisory group sessions during orientation.

2. Determine early in the program the amount of supervision a student will need and the best method(s) for matching students with learning experiences and for career decision-making. Systematic evidence is needed on the efficacy of particular diagnostic instruments in helping to provide the data necessary for the student activity matching process.

3. In order to better prepare advisors for their role in FY74, they will need training in the following areas:

    a. Curriculum development, enabling advisors to better understand the curriculum descriptions they have to work with.

b. Writing and utilizing performance objectives.

c. Use of guidance resource materials.

d. Blending of basic, life, and career development skills in individual student programs.

4. Priorities should be established for curriculum goals and the number which will be assessed should be limited; measures and indicators of student performance and growth should be provided to Resource Persons and others who work with the students so that growth over time can be assessed and documented; and a systematic way of coding student project objectives to the core curriculum areas must be developed so that advisors can identify, from a quick review of a checklist or printout, when a student's total set of projects over time fails to include one or more of the core skills areas. Advisors could then plan appropriate modifications to the student's program. Finally, advisors and students should be furnished clear criteria for judging the acceptability of students long-range plans and project plans and activities.

5. The role of technical advisor on projects has largely been performed by members of the Curriculum Development staff and by some Resource Persons. This role can be shifted to RPs, but they must be provided with clear and concise guidelines and procedures.

6. The integrative function accomplished through having students share and discuss their field experiences and studies, relating them to broader principles and concepts, was performed largely through the communications and other workshops conducted by various Development

staff members last year. This is, however, an Operations function and needs to be shifted to the advisory groups.

LEARNING OUTCOMES RECOMMENDATIONS

Career Development Skills. Needs for supportive or supplementary materials and techniques to facilitate learning of career development skills are:

1. support of students' career explorations in the community with instructional materials and guidance tools;
2. built-in mechanisms to encourage students to verify and expand upon information received about careers by utilizing other available sources of information;
3. built-in mechanisms to encourage students to reflect upon how career information and experiences relate to their interests, abilities, and goals;
4. support of students' career explorations with a conceptual framework for career decision-making which will integrate personal and career information in formulating educational and occupational goals; and
5. built-in objectives and mechanisms for incorporating career entrance skills into each student's program.

Life Skills. Standards and instruments need to be developed for assessing student growth in interpersonal skills, inquiry skills, problem-solving skills, and decision-making skills.

Preassessment rating forms, interview schedules, and other devices need to be developed for required life skills, especially for the core skills. Rating forms need to be developed for RP and LEO employees' assessment of student performance in the core life skills areas.

Basic Skills

1. Need to develop and refine procedures for monitoring students' progress in basic skills, e.g., a checklist to determine student growth on basic skills goals.
2. Basic skills activities and objectives, as appropriate, need to be built into individual projects and learning packages. Guidelines for use and incorporation of basic skills objectives and activities into student projects need to be provided to advisors.
3. A basic skills specialist suited to EBCE is needed on the permanent staff to assist students in integrating basic skills instruction with experiences in community settings.
4. Need to identify and catalog those RPs, CRs, and LEOs students may use to further develop their basic skills.

Credits

1. Strengthen liaison with records offices in OPS schools to assure timely receipt of transcripts and acceptance of FWS-assigned credits.
2. Recruit or train a student records assistant for the Operations component.
3. Require each new student to consult with a counselor at the school of origin for a review of his own record and list of requirements which he still must complete to qualify for graduation.

4. Negotiate with registrars in the state college system for acceptance of FWS credits with pass-fail grading and substitute documentation (e.g., student portfolio, college entrance test scores) of student performance.

APPENDICES

APPENDIX A

1972 OPERATIONAL PLAN EXCERPTS

I. Employer-Based Career Education Operational Plan, FWL, March 10, 1972,

Section IV.

Sub-section 5.0, Evaluation. (p. 10-11)

> "This component will collect and analyze information necessary to decide whether and how to modify the operating system. The objective is to ensure that the "cut-and-fit" process of EBCE system development is carefully planned, systematically executed, and fully documented. This process of on-going evaluation is essential both to the evolution of an effective educational system, and to the eventual transferability of the Oakland experience to subsequent installations.
>
> Although heavy emphasis during the first year of operation will be placed on formative evaluation, we also intend to obtain summative data. Individual progress toward prescribed competencies will be measured, and information will be systematically collected regarding attitudes of students, parents, and employers toward EBCE."

II. Employer-Based Career Education Model, FWL, March 14, 1972, Section

VI. Exclusions, Paragraph 2. (p. 5)

> "2. Our evaluation of EBCE during one year of operation may not provide conclusive evidence concerning EBCE's educational effectiveness. This is because the system itself will be changing during the year; we will be dealing with a very small heterogeneous sample of students; methods and tools of evaluation will themselves be evolving during the year; and it will not be possible to obtain data about the students' post-EBCE experience."

APPENDIX B

RESOURCE PERSON

Sample Orientation Guide

Resource Person

Ken Yamada, Grove Street College Day Care Center, 61st and Idaho Streets, Oakland.

Activity

Introduction to (a) careers in the field of early childhood education and (b) behavior among children aged 16 mos. to five years.

Rationale (optional)

An Orientation Activity conducted at this site will provide the student with otherwise unobtainable and invaluable knowledge about careers in the area of early childhood education, training and care, in addition to providing the student with excellent first-hand experience regarding behavior of young children. This information will enable the student to make rational, well-informed decisions about this career area.

Possible Projects

1. Complete Career Exploration Guide.
2. Prepare a report for your advisor, either oral or written, and include in it your opinion of the relevancy and meaning of this Activity.
3. Decide whether to do an Exploration. List any possible activities for such exploration.

Student Prerequisites

Student must have evidence of a recent negative TB exam. Student must be interested in learning and doing things.

Objectives

After completing the Orientation Activity, the student will be able to:

1. Complete the Career Exploration Guide.
2. Demonstrate knowledge of general behavior of children aged approximately 16 months to five years.
3. Evaluate this Orientation Activity.

Learning Strategy

Conversation with Mr. Yamada and other interested, available and willing staff, question-and-answer period, tour of the facilities, participation in the activities of the children.

Procedures

Related Reading/Information Sources

The Nursery School by Read, Chapters 7 and 8.

Materials Needed

Note-taking materials.

Evaluation of Orientation/Achievement of Objectives

Evaluate your products.

Evaluation of Orientation Experience/Guide

Complete the Orientation evaluation form (attached).

Students Who Have Completed This Activity

RESOURCE PERSON

Sample Exploration Guide

Resource Person

Ken Yamada, Grove Street College Day Care Center, 61st and Idaho Streets, Oakland.

Activity

Investigation of careers available in the area of early childhood education; the procedures involved in establishing, equipping and maintaining a center for young children; and investigation of behavior patterns, growth characteristics and learning mechanisms among children aged 16 mos. to five years.

Rationale

A student who is considering a career involvement with young children or who is interested in a casual approach to child psychology, interims of studying behavior patterns and general characteristics of children from 16 mos. to five years, would find this exploration interesting and valuable.

Possible Projects

1. An EBCE student could help plan curriculum activities for the Center.
2. Cooking project, involving cooking with the children on their individual stoves. Visual illustrations could be incorporated into this project.
3. Opportunity to construct toys or outdoor structure for children's use.
4. Student may wish to engage children in singing activities while student accompanies children on a musical instrument.
5. Student may wish to pursue project related to assisting the full-time cook on the premises.
6. Report on the trend of Early Childhood Education in the Bay Area.
7. Student may invent learning games for children.
8. Children would be good subjects for a photographic unit.

Student Prerequisites/Special Requirements

Student must have completed the Orientation Activity with Mr. Yamada.
Student must have recent negative TB test results.

Objectives

1. Show your understanding of aspects of social service careers specifically, in terms of staff training, staff characteristics, staff interrelations, staff communication, staff responsibilities, and so forth. SS685
2. Make a judgment about a possible career for yourself in social service. Use these criteria: (a) interest; (b) job potential; (c) salary potential a fringe benefits; (d) congruency with your value system; (e) your performanc in related objectives and explorations; and (f) your developed abilities as reflected in test scores (see your advisor about test scores.) SS690
3. Demonstrate your ability to use the information sources necessary to complete your project. SS710
4. Demonstrate your ability to present and support a hypothesis regarding an area of child development and/or early childhood education. Your presentation may be written or oral. (A hypothesis is an original idea which is stated in such a way that it can be tested to find whether it is true or false. Example: Two-year old boys play with other boys twice as much as they play with two-year-old girls.)
5. Based on a "hands-on" experience at this day-care center, decide whether you would enjoy a career that involves working with pre-school children.
6. Demonstrate that you have learned the general, administrative procedures utilized in maintaining a center for young children.
7. Write your own objectives which state your reasons for wanting to do an exploration with Mr. Yamada at this day-care center.

Learning Strategy

Conversations with Mr. Yamada, conversations with other available and willing staff, participating in children's games and activities, (including snacks and meals), assisting in maintenance of Center, readings assigned by Mr. Yamada or your advisor, classes at Laney College. Student may wish to consult with the Early Childhood Division of Far West Laboratory. (This would have to be approved first by that division. See Dianne to arrange this.)

Procedures

Regular procedures. Public transportation is available to the site.

Related Reading/Information Sources

To be arranged by Mr. Yamada and the student. You may wish to look for other reading material on your own.

Materials Needed

Basic materials: pen or pencil, note cards and/or paper. Additional materials may be necessary for particular projects.

Evaluation of Project/Achievement of Objectives

Evaluate your project with your advisor and with Mr. Yamada (if he is willing). Did you reach your objectives? Did you earn credits?

Evaluation of Exploration Experience /Guide

Complete the Exploration Opinion Questionnaire (attached)

Students Who Have Completed This Activity

APPENDIX C

SUMMARY REPORT TO THE LEO ON STUDENT'S REACTION
TO THE ORIENTATION AND EXPLORATION

Monitor _____ Date of Orientation _____

LEO _____ Date of Exploration _____

ORIENTATION

1. Students described the events in orientation as follows:
   CONTENT:
   LENGTH:
   EMPLOYEES' ATTITUDES:
   EMPLOYEES' PREPARATION:
   EMPLOYEES' REACTION TO QUESTIONS:

2. Students described modes of presentation in the orientation as follows:

	USED	INFORMATIVE	NOT-INFORMATIVE
Films	___	_____	_____
Slides	___	_____	_____
Lectures	___	_____	_____
Discussions	___	_____	_____
Walking Tour	___	_____	_____
Vehicular Tour	___	_____	_____

3. Students felt the orientation was adequate for describing the activities of the following exploration: yes___ no___

EXPLORATION

1. Students described the events in the exploration as follows:
   CONTENT:
   LENGTH:
   EMPLOYEES' ATTITUDES:
   EMPLOYEES' PREPARATION:
   EMPLOYEES' REACTION TO QUESTIONS:

2. Students described modes of presentation in the exploration as follows:

	USED	INFORMATIVE	NOT-INFORMATIVE
Films	___	_____	_____
Slides	___	_____	_____
Lectures	___	_____	_____
Discussions	___	_____	_____
Walking Tour	___	_____	_____
Vehicular Tour	___	_____	_____

3. Students were asked about several possible items of information they might have expected to learn during the exploration. The following is a summary of their response:

	OBSERVED	NOT OBSERVED
a. How academic skills are applied on the job		
b. How the many employees depend on each other's skills to accomplish the objectives of the company		
c. How a large company is structured and managed		
d. What different careers are available in a large company		
e. Some of the principles of the business world		
f. Insights into human relations from seeing how people interrelate while accomplishing a task		
g. The influence of social problems on the world of work		
h. The amount of individual expression allowed by management		
i. The salary and fringe benefit structure of the business		
j. Others: _____		
_____		

4. The student's judged the LEO exploration as follows:

_____ Not worth repeating for future students

_____ Worth repeating for future students if substantially revised

_____ Worth repeating for future students with minor revisions

_____ Not worth developing an in-depth investigation for the same students

_____ Worth developing an in-depth investigation for the same students

_____ Is not a potential source of RPs

_____ Is a potential source of RPs

_____ Provides sufficient information on organizations in this or related industries

_____ Suggests need for locating more LEOs in this or related industries

MONITOR'S EVALUATION OF THE LEO EXPLORATION

Monitor_____ Date of Exploration_____

LEO_____

Instructions:

Judge the level of attainment of each of the LEO Objectives accomplished during the "Exploration" by assigning an integer from the code below:

1 = No information or activity presented relevant to the objective

2 = Information and/or activity presented but little student reaction observed

3 = Information and/or activity presented and student reaction observed

I. Student Objectives

A. Career

____1. Stimulate student career interest and activity.

____2. Offer a wide variety of career-area experiences to the student.

____3. Present the relationship between educational background and career position as exemplified by particular individuals.

____4. Give the students the opportunity to have "hands-on" experiences in various career areas.

____5. Familiarize the student with the hierarchies of various organizational types.

____6. Acquaint the students with the occupational necessities and principles of the business world.

B. Education

____7. Demonstrate the kinds of academic skills necessary for a variety of careers.

____8. Present the opportunity to develop academic skills (and use those already acquired) in career environment by participation in career tasks.

C. Growth

____9. Allow students to interact with persons (adults other than parents, teachers, or advisors) pursuing varied careers.

____10. Have students investigate, in a career rather than an academic environment, social issues of importance to the student.

____11. Give the students the opportunity to form opinions about the business world based on first-hand experience rather than preconceived ideas.

II. Program Objectives

_____12. Students wish to repeat their LEO experiences with other LEOs and recommend the program to other students.

_____13. Students express constructive criticism of the LEO program.

APPENDIX D

SUBJECT-EQUIVALENCY PACKAGES STUDENT OPINION QUESTIONNAIRE

1. In which package did you participate? Check below. Student_____

☐ Science

☐ American government

☐ American history

2. How would you rate the package activities you took part in? Use the following scales.

(Circle one)

Dull	1	2	3	4	5	6	7	Interesting
I learned nothing	1	2	3	4	5	6	7	I learned a lot
Too hard	1	2	3	4	5	6	7	Too easy
I disliked it	1	2	3	4	5	6	7	I liked it

3. About how many hours did you spend on this activity?

15 30 45 60 75

More than 75 Specify_____

4. Did you work with a resource person in relation to your science, American government, or American history project? ____Yes ____No. If yes, please give your opinions below. Was the resource person:

(Circle one)

Not patient	1	2	3	4	5	6	7	Patient
Not helpful to me	1	2	3	4	5	6	7	Helpful
Was too busy	1	2	3	4	5	6	7	Spent enough time with me
Not very interesting	1	2	3	4	5	6	7	Interesting
Unpleasant	1	2	3	4	5	6	7	Pleasant

Name of RP_____

5. Did you work with a technical advisor in relation to your science, American government, or American history project? ____Yes ____No. If yes, please give your opinions below. Rate your technical advisor:

(Circle one)

Didn't help me with my project	1	2	3	4	5	6	7	Helped me a lot
Was too busy	1	2	3	4	5	6	7	Spent enough time with me
Didn't help me pull my ideas together	1	2	3	4	5	6	7	Helped me pull my ideas together
Didn't help me organize my project	1	2	3	4	5	6	7	Helped me organize my project

Name of technical advisor_____

6. Did you go to a community resource (library, city council meeting, museum) in connection with your science, history, or government project? Please rate:

(Circle one)

Not useful 1 2 3 4 5 6 7 Useful

I disliked it 1 2 3 4 5 6 7 I liked it

No help to me 1 2 3 4 5 6 7 Helped me

Name(s) of community resources _____

_____

7. Describe your activities in the package. What did you do? _____

_____

_____

_____

8. What did you expect to learn in the situation? In other words, what was your purpose in doing the specific project you chose? _____

_____

_____

_____

9. To what extent was that purpose achieved?

Moderately

Not at all 1 2 3 4 5 6 7 Completely

Why or why not? _____

_____

_____

_____

10. What can you tell me about the activities you did, about your project?

_____

_____

_____

_____

11. Do you agree that this idea (subject areas with RPs, instead of classes) should be continued next year?

Moderately

Not at all 1 2 3 4 5 6 7 Completely

12. What would be some good ways to introduce new students to the package approach?

_____

_____

_____

_____

13. Do you have any suggestions for improving this approach?_____

14. Would you recommend this activity to another student? ____Yes ____No
Please explain._____

15. Could the RP guides be improved? ____Yes ____No. If yes, how? _____

16. Did you use the RP guides? ____Yes ____No. If yes, to what extent did you find them helpful?_____

17. To what extent were the notebooks helpful in preparing you for the experience with the RP?

(Circle one)

Not at all 1 2 3 4 5 6 7 A great deal

18. How would you rate the notebooks on the following scales?

(Circle one)

Dull	1	2	3	4	5	6	7	Interesting
Too long	1	2	3	4	5	6	7	Just right
Unclear	1	2	3	4	5	6	7	Clear
Difficult to read	1	2	3	4	5	6	7	Easy to read
Not useful	1	2	3	4	5	6	7	Useful
I disliked them	1	2	3	4	5	6	7	I liked them

19. Do you think we should continue to make up guides for other RPs? ___Yes ___No.

Why or why not? _____

_____

_____

_____

_____

20. Did you learn about any careers while you were working on the science, American government, or American history package? ___Yes ___No. List the careers you learned about down the right-hand column below, and indicate how much you feel you learned by circling the appropriate number on the scale.

(Circle one)

Very little 1 2 3 4 5 6 7 A great deal _____

Very little 1 2 3 4 5 6 7 A great deal _____

Very little 1 2 3 4 5 6 7 A great deal _____

Very little 1 2 3 4 5 6 7 A great deal _____

Very little 1 2 3 4 5 6 7 A great deal _____

Very little 1 2 3 4 5 6 7 A great deal _____

Very little 1 2 3 4 5 6 7 A great deal _____

21. For the job that you rated highest in question 20, please state three things for the following questions:

What kinds of things would you like most about this job? _____

_____

_____

_____

What would you like least about this job? _____

_____

_____

_____

22. What level of schooling is generally required of persons entering this job?

☐ Less than high school graduation

☐ High school graduation

☐ Two years of college

☐ Four years of college

☐ More than four years of college

☐ Special vocational school

APPENDIX E

STUDENT INTERVIEW QUESTIONS

RESOURCE PERSONS

1. Who are some of the RPs you visited? Let's take some examples, some with whom you spent some time?
2. What did you expect from the RPs?
3. What did you do with the RPs?
4. What did you learn from the RPs? (skills, career information, information about self, subjects: science, history, government, other)
5. What are the requirements for that job? (education, union, skills, values and interests)
6. What are the characteristics of the job? (setting, freedom vs. structure, rewards, etc.)
7. Would you like to do that for a living? Why?
8. Take a list of RPs the student has visited. Ask "Why did you visit this RP?" for several RPs.

   Was it to complete a project?

   Was it to fulfill a requirement for exploration across career fields?

   Was it because you thought you might be interested in a career in that field?

   Was it just to be doing something?

   Other reasons?
9. Take two or three examples of working adults you have visited. Why do these people work? (For the money? What other reasons? Why do you conclude that?)

MATH

1. Have you learned any math this year?
    a. What kind? Give examples. (Do any of the RPs or LEO employers you've visited use math?)
    b. Where did you learn it and how?
2. Do you believe you will ever use math in the kind(s) of career(s) you are interested in? What kinds?
3. How could you improve your math skills in this program next year?

INTERPERSONAL AND POLITICAL SKILLS

1. Have you learned anything about relating to people?
2. Has this program helped you in any way express yourself better--saying what you mean, etc.?
    a. One-to-one?
    b. Groups?
3. What have you learned about how to meet the expectations of RP's and staff?
4. Do you feel more comfortable or confident now meeting new people? (Talking to adults, asking questions, etc.)

READING

1. Has this program had any effect on your reading?
2. Do you read more, or different things, or about the same? (Have your reading interests changed in any way?)
3. Do you think you understand better what you read?
4. Do you read anything when you visit an RP?

5. Have you read anything <u>because</u> of a visit to an RP?

6. Can you relate something you have read to experiences in the program or your personal life?

WRITING

1. Can you express yourself better in writing?

2. What kind of writing have you done this year?

   letters

   essays

   project forms

   journals

   (Why?)

3. Did you write <u>anything</u> while working with an RP, or as a result of seeing an RP? (other than Far West forms)

4. Does writing help you in any way? Do you enjoy or value it more? How? Why?

5. Do you have a better understanding of your writing ability? (Strengths and weaknesses; what needs to be improved?)

6. Did you observe any people using writing skills out in the working world? (Can you see yourself in a job that requires a good deal of writing? Why? Why not? What kind of writing?)

LEOs

1. Have you visited any large employer organizations? (Southern Pacific, Moore Business Forms, Rhodes)

2. What did you do there?

3. What did you learn? (How an organization works, etc., different jobs)

CAREER INFORMATION/AWARENESS

1. Have you learned about kinds of jobs that you really didn't know anything about before you came to the program? If yes, what kinds of jobs? Could you give us some examples?
2. Choose one or two jobs and tells us:
    a. how a person in that job spends his day?
    b. what kinds of things he does?
    c. what qualifications are required to get that kind of job?
    d. what a person in that kind of job makes?
    e. what kind of people go into that kind of work?

PROGRAM PLANNING

1. Have you had much freedom to plan your program?
    a. Is the "freedom" a problem?
    b. How have you coped with it?
2. How is your learning program different from schools?
3. What is a project?
4. How do you start one?
    a. Career interest
    b. Personal interest
    c. OPS requirements
5. Have you found it hard to get a project going? Why?
    a. How do you plan one?
    b. What do you do to carry it out? (Give specific examples--RPs, LEOs, Community Resources)

SELF-DEVELOPMENT

1. What have you learned about your own strengths and weaknesses?
2. Do you know more about your personal interests than you did when you came to this school? ___Yes ___No Give examples.
3. Have you learned anything about working on your own this year? (semester) ___Yes ___No Explain.
4. What have you learned about taking initiative? Be specific. How have you learned this?
5. What have you found out about accepting the responsibility for what you do? Have you become more/the same/less responsible? More/the same/less willing to take the rewards of success, the blame of failure?
6. What about your self-confidence. Has it decreased/increased/stayed the same since you've been in this program?

   If any change, what do you think brought about the change?
7. Have you learned anything about judging or evaluating your own progress? What have you learned? What things helped you learn?
8. Have you learned anything about self-discipline?

FAR WEST SCHOOL

1. What is your overall opinion of the Far West School?
   a. Have you learned anything in this program, or has anything worthwhile happened to you, that probably would not have happened in the schools?
   b. What did you like best about the school? Why?

c. What did you like least? Why?

d. If you had it to do over again, would you come here or stay in the public schools? ___ Here ___ OPS Why?

e. What changes would you make?

2. Have your activities in FWS helped you to figure out what you want to do after high school? (How? Could you give us an example?)

APPENDIX F

STUDENT PROGRESS EVALUATION

ADVISOR RATINGS OF STUDENTS

The following items were used for rating students at the end of the FWS year. These ratings were based on information obtained in a three hour student interview. The students were rated on each item using the following seven point scale.

Not at All			Moderately		Completely	
1	2	3	4	5	6	7

Means and standard deviations for two groups of students are also shown.

	One Year Students (N=12)		One Semester Students (N=15)	
	Mean	Std. Dev.	Mean	Std. Dev.
1. To what extent has the student developed an ability to formulate and consider alternatives in making vocational decisions?	5.3	.8	4.7	1.4
2. To what extent has the student decided on his vocational goals?	5.0	1.4	4.9	1.0
3. To what extent is the student realistic about his/her vocational aspirations?	5.1	1.0	4.7	1.3
4. To what extent has the student developed an interest in and motivation for:				
a. the world of work	4.8	1.0	4.8	1.3
b. a particular vocation	4.8	1.3	4.9	.8
c. school	4.8	1.4	4.5	1.7
5. To what extent has the student learned to make decisions for himself/herself?	5.1	1.1	5.3	1.4
6. To what extent has he/she become an active learner?	5.0	1.2	5.1	2.0
7. To what extent was the Far West School a growth or maturation experience for him/her?	5.0	1.8	5.0	1.7
8. To what extent has the student become more responsible about his/her own life?	4.8	1.2	5.1	1.7

9. To what extent has the student clarified his/her own vocational goals?	4.8	.9	4.8	.9
10. To what extent was the students' evaluation of the Far West School experience more favorable than for Oakland Public School experience?	5.9	1.0	5.8	1.6
11. To what extent has the student effectively utilized the freedom offered by the Far West School?	4.8	1.6	5.0	1.9
12. To what extent has the student found the LEO a positive learning experience?	3.2	2.2	2.9	2.8
13. To what extent has the Far West School experience improved the student's:				
(a) reading habits	2.7	1.5	2.5	1.5
(b) math skills	1.5	1.2	1.5	1.1
(c) writing skills	3.5	1.2	2.5	1.5
(d) ability to meet and deal with people (interpersonal skills)	5.2	.8	4.8	1.7
(e) problem-solving skills	5.2	.8	4.5	1.7
14. To what extent has the student explored a variety of career areas?	4.1	.7	3.9	1.8
15. To what extent has the student sought information about characteristics/requirements of possible careers?	4.9	.9	4.1	1.5
16. To what extent did the student's interaction with RP's lead to in-depth experiences?	5.0	1.4	4.9	1.6
17. To what extent has the student learned about his own abilities, interests, and values?	5.2	1.2	5.1	1.4

APPENDIX G

SCHOOL OPINION SCALE

Name _____

Grade Next Year _____

What school did you attend this last year? _____

We are asking you to do something different. We want you to think of "school." We would like you to describe what you think of school by using the words below. As an example, we have the words:

Fun 1 2 3 4 5 6 7 Drag

When you think of school, which is more true? If school is lots of fun, circle number 1. If you think it is a drag, circle number 7. If you think it is someplace in the middle, circle one of the middle numbers. Some of the words may seem kind of funny to you but we would like to have you use all of them to describe your school. You can circle any number from one to seven, choosing the number that is closest to the way you feel about school.

SCHOOL IS

High	1	2	3	4	5	6	7	Low
Dark	1	2	3	4	5	6	7	Bright
True	1	2	3	4	5	6	7	False
Slow	1	2	3	4	5	6	7	Fast
Weak	1	2	3	4	5	6	7	Strong
Want to	1	2	3	4	5	6	7	Have to
Rough	1	2	3	4	5	6	7	Smooth
Ashamed	1	2	3	4	5	6	7	Proud
Active	1	2	3	4	5	6	7	Still
Helpful	1	2	3	4	5	6	7	Useless
Small	1	2	3	4	5	6	7	Large
Cold	1	2	3	4	5	6	7	Hot
Clear	1	2	3	4	5	6	7	Hazy
Old	1	2	3	4	5	6	7	Young

Good	1	2	3	4	5	6	7	Bad
Mean	1	2	3	4	5	6	7	Nice
Exciting	1	2	3	4	5	6	7	Boring
Square	1	2	3	4	5	6	7	Round
Gain	1	2	3	4	5	6	7	Lose
Tense	1	2	3	4	5	6	7	Relaxed
Happy	1	2	3	4	5	6	7	Sad
Afraid	1	2	3	4	5	6	7	Sure
Soft	1	2	3	4	5	6	7	Loud
Beautiful	1	2	3	4	5	6	7	Ugly
Real	1	2	3	4	5	6	7	Phoney
Stale	1	2	3	4	5	6	7	Fresh
Alone	1	2	3	4	5	6	7	Group
Hard	1	2	3	4	5	6	7	Easy

APPENDIX H

JOB INFORMATION QUESTIONNAIRE

NAME _____

ADVISOR _____

DATE _____

Please choose one job or occupation that you feel you have learned most about as a result of your experiences in Far West School.

Name of job _____

Through what program or activity in Far West School did you gain your contact with this job?

_____ Large employer organization

_____ Southern Pacific

_____ Breuner's

_____ Moore Business Forms

_____ American History Package

_____ Science Package

_____ Political Behavior Package

_____ Other project (explain) _____

_____ Other activity (explain) _____

Now please answer the following questions to the best of your ability. Your answers will help us. Thank you.

This questionnaire is intended as a way of seeing how much information you have about a particular job you have explored or expressed an interest in. Please fill in the job title above and answer the following to the best of your ability.

1. I have visited [__0, __1, __2, __3 or more] sites where this job is performed.

2. List five things you would be required to do as part of this job.

3. What level of schooling is generally required of persons entering this job?

[] less than H.S. graduation
[] H.S. graduation
[] 2 yr. college
[] four yr. college
[] more than four yr. college
[] special vocational school

4. What school subjects or areas of study are most highly related to this kind of work? That is, is knowledge of certain subjects likely to make one more successful on the job? If so, what subjects are they?

5. What monthly rate of pay could you expect from this kind of work? $_____

6. Are there any physical qualities which are required for persons doing this kind of work (e.g., able to stay on one's feet for long periods of time, lifting heavy loads, height, vision, etc.)? List at least three.

7. Describe the physical surroundings in which this work is generally performed (if you have not visited a place where this work is performed, describe what you imagine typical sites to be like, e.g., indoor-outdoor, crowded-roomy, clean-dirty, colorful-drab).

8. List at least five tools or pieces of equipment used in this work.

9. Describe the personality of the person you would expect to do well in this job. Name at least three characteristics (e.g., calm, industrious, good leader, etc). Explain why or why not.

10. What can you say about job possibilities in this area? Do you think in the next few years there will be much of a demand for people in this kind of job? Explain reasons for your answer.

11. Can you estimate ways in which the nature of the job might change over the next 10 years?

12. Is there a likelihood of advancement or promotions for people in this job? Explain.

13. What are 3 related or similar jobs that a person who does this job might also be able to do?

14. What influences does this job have on one's life style (e.g., effect on family life, geographical location, vacations, people one associates with, etc.) Be as specific as you can.

15. What kinds of things about this job would you most like? Name at least four characteristics or aspects of the job that you like.

16. What would you most dislike about this job? Name at least four things.

17. What are the likely working hours for people doing this job?

18. I have obtained information about this job from the following sources (check as many as apply):

[] visiting job site(s)
[] talking to my advisor
[] talking to friends
[] talking to people on the job
[] talking to my parents
[] television, radio, newspaper
[] other printed material (state what_____)
[] other (give specifics:_____)

19. In what ways do you feel that this would be a good job for you? Be specific.

20. In what ways would this NOT be a good job for you? Be specific.