DOCUMENT RESUME

ED 068 092

JC 720 245

TITLE

Community College Vocational Cooperative Education: Exemplary Project in Vocational Education Conducted Under Part D of Public Law 90-576. Second Annual

INSTITUTION

Coast Community Coll. District, Costa Mesa, Calif.; San Mateo Junior Coll. District, Calif.

SPONS' AGENCY

Bureau of Adult, Vocational, and Technical Education

(DHEW/OE), Washington, D.C.

BUREAU NO

Proj-0-361-0069

PUB DATE

1 Nov 72

CONTRACT

OEC-0-71-0527 (361)

NOTE

49p.

EDRS PRICE

MF-\$0.65 HC-\$3.29

DESCRIPTORS

Consortia; *Cooperative Education; *Junior Colleges;

Program Administration; Program Effectiveness; *Program Evaluation; *Vocational Education: *Work

Study Programs

IDENTIFIERS

*California

ABSTRACT

This is the second annual report concerning a multiple-option design for a cooperative education program used by a consortium of five California community colleges. (For the first annual report, see ED 058 880.) The effectiveness of the program is assessed by analyzing 15 areas such as retention, income, employer attitudes, cost effectiveness, and career training options. Innovative aspects of this cooperative education program include: (1) the use of business, industry and civic agencies within the community as experience laboratories; (2) the use of performance objectives, permitting clearer understanding of cooperative education; (3) an effective method of providing educational assistance for veterans: (4) enabling handicapped students to go beyond the traditional vocational confinement; (5) the use of computers to simplify the process of enrolling, follow-up, evaluation, and articulation; (6) presenting new employment opportunities for women; (7) the use of evaluations by students, supervisors, and employers to measure progress and give direction for the future; (8) the development of career education by combining the community college program with academic and vocational instruction in other educational programs; and (9) the enhancement of academic and skill development in law enforcement programs. (RN)

U.S. DEPARTMENT DF HEALTH.
EDUCATION & WELFARE
DFFICE DF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIC-INATING IT POINTS OF VIEW OR DPITIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDU-CATION POSITION OR POLICY

SECOND ANNUAL REPORT

Project No. 0-361-0069

Contract No. OEC-0-71-0527(361) Period Covered July 1, 1970 through October 30, 1972

COMMUNITY COLLEGE VOCATIONAL COOPERATIVE EDUCATION

Exemplary Project in Vocational Education Conducted Under Part D of Public Law 90-576

San Mateo Community College District

Clifford G. Erickson Chancellor/Superintendent

Board of Trustees Eleanore D. Nettle, President James R. Tormey, Jr., Clerk Francis W. Pearson, Jr. Robert A. Tarver Carl E. Ward

Coast Community College District

Norman E. Watson Chancellor/Superintendent

Board of Trustees William E. Kettler, President Worth Keene, Vice President Donald G. Hoff Robert L. Humphreys George Rodda, Jr.

The project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational and Technical Education, Office of Education, United States Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Coordinating Supervisors:

Mr. James Garmon Mr. Karl Strandburg Mr. Ted Gilman Dr. Lois Callahan Mr. Floyd Elkins

Orange Coast College Golden West College Cañada College College of San Mateo Skyline College

Dr. Robert L. Bennett Project Director San Mateo Community College District 2040 Pioneer Court San Mateo, California 94403 Phone: (415) 574 6562

Mr. Vaughn Redding Director, Coast College Programs Coast Community College District 2701 Fairview Road Costa Mesa, California 92626 (714) 834 5623

UNIVERSITY OF CALIF. LOS ANGELES

DEC 6 1972



CONTENTS

Overview of the First Two Years	1
Research on Effectiveness	1
Goals and Objectives	6
Progress Toward Objectives	7
Three Patterns	10
Institutional Description	12
Progress Indicators	15
Enrollments By Division	16
Community as an Experience Laboratory	17
Student Achievement By Performance Objectives	18
Educational Assistance For Returning Veterans	24
Cooperative Education For the Physically Handicapped	25
Cooperative Education Workshop	29
New Careers For Women Through Cooperative Education	30
Employer Evaluation of On-the-job Performance	33
Evaluation From Students and Employers	35
A New Coordinator Reports On Progress	38
Articulation With Elementary & Secondary Schools	42
Career Education K-14	44
Evaluation Questionnaire	45
Law Enforcement Cooperative Programs	46
Comments From Students, Employers and Supervisors	47
Newsletter For Cooperative Education	50



OVERVIEW OF THE FIRST TWO YEARS

Cooperative education in community colleges is proving to be a cost-

effective way of involving business, industrial and civic agency "laboratories of the community" to improve the quality of education for students.

A consortium of five community colleges--College of San Mateo, Cañada and Skyline of Northern California in the San Francisco Bay Region and Orange Coast and Golden West of Southern California in the Los Angeles-San Diego Region have completed two years of development and validation to test the process with a grant from Part D of the Vocational Education Act.

The plan has been to demonstrate the effectiveness of a multiple option design for career preparation combining community college classroom instruction with coordinated off-campus paid work experience. Three patterns of cooperative education have included the alternate semester, the parallel and the extended day options.

Opportunities have been provided for training, re-training and upgrading. Innovative procedures were developed for training to achieve first-job entry, for re-training and development of special skills particularly for veterans and other special need groups, and for upgrading of those working at entrance-level jobs who are capable of upward mobility through community college cooperative education.

EFFECTIVENESS OF VOCATIONAL COOPERATIVE EDUCATION IN COMMUNITY COLLEGES

Preliminary analysis of data in fifteen areas of study indicate

the following results are occurring as the program is demonstrated.

1. Retention of students is improved by a factor of nearly 2 to 1.

Evidence at this point of development indicates that overall college retention rates are on the order of 57%, while for vocational cooperative education students it is 76%. In other words, for every two students who leave traditional programs in community college before completion only one co-op student leaves before completion.



2. Academic standing is maintained or improved while enrolled in cooperative education in community colleges.

Overall it is evident that vocational cooperative education employment does not detract from academic standing and in most cases brings about improvement of grade-point average through increased motivation and greater opportunity for learning.

3. Total income earned by students as the result of community college cooperative education paid work experience in the five college consortium during 1971-72 was in excess of \$12,000,000.

Of 4,121 students in co-op, 3,850 earned an average of \$2.53 from their employers while working an average of 30 hours per week for an average of 42 weeks. The salaries actually ranged from a low of \$1.50 per hour to a high of over \$1,000 per month.

Even in the case of the small percentage of students who begin as volunteer interns in public service careers during the first period of employment, it is apparent that many are placed on the employer's payroll when competence is demonstrated.

4. Disadvantaged students show improved progress.

Disadvantaged students who in traditional kinds of programs have tended to be early dropouts because of educational deficiencies or financial limitations are achieving success in vocational cooperative education in about the same percentages as the total data reported on retention and earnings in 1, 2 and 3 above. This level of progress is well above early expectations.

5. Employers are highly receptive to community college cooperative education after a period of effective demonstration and promotion.

Employer positive response to the program is indicated by the fact that about 50% of "good prospect" employers screened from response letters to development literature actually become employers of cooperative education students. A total of 1,800 business, industry and community agencies have employed the 4,121 students enrolled in community college cooperative education during 1971-72 school year in the five college consortium.

Employers look upon community colleges as the largest local labor pool of young, talented employees with high potential for advancement to technical and management positions. The co-op plan is the answer to their recruiting and screening problems.

Students as well as employers benefit from the effectiveness of cooperative education to open wide new areas of employment traditionally not available to beginning workers. Recruitment as well as options for continuing are mutually beneficial.



6. <u>Cost-effectiveness</u> of community college cooperative education is being demonstrated as highly productive for the funds invested.

Man hours of co-op coordination including job development, counseling, evaluation and on-the-job consultation are 5.87 man hours per student per semester.

Cost of vocational cooperative education (other than on-campus classroom instruction) including 3 semester-hours credit per student with associated teacher-coordinator activities, job development, counseling and on-the-job consultation and evaluation is \$52.17 per student per semester.

These calculations are based upon salaries of \$15,650 for instructor-coordinators working 8 hours per day for 220 days per year, providing full coordination services for 150 students per semester.

Since vocational cooperative education accounts for up to 25% of the total unit credit of a vocational program in community college, it is quite apparent that a substantial negative-excess-cost-factor can be applied to programs of this type. Through cooperative education the total cost of college per student is reduced.

7. <u>Improved educational opportunities</u> are documented in terms of student performance objectives and new on-the-job training programs.

Student learning and performance objectives identified on-the-job at the beginning of the semester have resulted in great progress toward new learning opportunities as perceived by both students and their employers; and

Industrial and business training programs for on-the-job advancement toward mid-management and senior technician careers open a whole new area of interchange between employers and community colleges through cooperative education. Examples of on-the-job-formal training programs are found in service industries, whole-sale and retail trade, transportation, manufacturing and civil service.

8. Firm linkage between educational preparation and permanent employment upon graduation results from cooperative education.

Although two years is not sufficient for final evaluation, there is much evidence to indicate that a true linkage is being established between educational preparation and employment doing the kind of work for which training has been undertaken. Employment in direct relationship to training has been a major source of concern for many other kinds of training programs. Co-op because of early direct involvement between student and employer apparently provides an effective solution.

9. Training, upgrading and re-training are important features of the demonstration for those with lower-level jobs who wish to improve their positions as well as those who are beginning work for the first time.

Placement on the first job and advancement to higher levels of competence are two patterns of co-op employment. The parallel plan enrolling about 48% of the 4,121 students, along with the extended day new career plan enrolling about 45%, are the two most used methods of co-op interaction with employers. Alternate semester arrangements for 6% are increasingly in demand and the trend is growing.

Employment and coordination are the two universal factors in cooperative education.

Enthusiasm develops as students get involved in on-the-job activities. Increasingly there are requests for information on upward transfer to state colleges by those whose sights have been raised through the cooperative education process. State colleges are responding by developing opportunities for co-op transfer students who have been "turned on" to further education.

10. Nearly 100% of students are able to hold their co-op jobs after placement.

Although many students must learn to cope with problems on the job there is less than 1% failure rate. Reassignment to other jobs is sometimes used if unusual problems are encountered. Coordinators and on-the-job supervisors have proven to be highly effective in helping co-op students to succeed.

11. Cooperative education job development can be accomplished either by full-time developers or by assignment as part of the task of regular co-op coordinators.

At this stage of development it requires about 3 man hours to develop one co-op job. There is evidence to indicate that a dual approach should be taken for this function. Much of job development belongs with the regular coordination assignment, particularly for work station development within organizations already employing co-op students.

- 12. Employer participation is developed using at least five approaches:
 - a. One-by-one meetings with supervisory personnel;
 - b. Large group meetings with many employers;
 - c. Large companies and small businesses approached through associations;
 - Band-wagon effect in job development as companies become aware of program potential;
 - e. Job development as a regular function of cooperative coordination activities.



13. Returning veterans are finding cooperative education particularly helpful.

There is a tendency for veterans to turn to community colleges rather than other institutions for continuing education. They find the cooperative education approach attractive. Two coordinators report that 30% of their cooperative programs are made up of veterans.

Employers are satisfied with employees trained through cooperative education procedures. Evidence of this is the fact that employer overall ranking of cooperative students is 7.4 on a 10-point scale. This is the category identified as "highly satisfactory". Most co-op students rank well above 5.0 the "average". Only 5% rated as "below average".

14. Career training options for students have doubled, it is estimated, with no increase in the numbers of college programs.

Coordinators of the five college programs have estimated that the range of actual career training options which have emerged through cooperative education is twice those listed in their college catalogs. Students are able to move into unique, unusual job preparation opportunities through combinations of community college instruction with work experience in new areas.

Unique opportunities are being provided as, for example, special cooperative opportunities for hearing-impaired students, Learning Center support for co-op disadvantaged students, revision of many law enforcement training programs in southern California to take advantage of community college cooperative education; public service career opportunities; and work stations in places such as Los Angeles, Sacramento and Washington, D.C. on the alternate plan.

15. The consortium approach to development of innovation in five colleges provides course stimulation between colleges capitalizing on individual breakthroughs.

Five unique approaches are developing. Two geographical areas in northern and southern California with different kinds of facilities for students are being tested. Unique faculty strengths are available to students including 180 coordinators from 40 college divisions. 1,800 employers are assisting in the education of over 4,000 community college students.

GOALS AND OBJECTIVES ATTAINABLE WITHIN THE SCOPE OF THIS EXEMPLARY PROGRAM Goals for student development are

to:

1.	Provide effective counseling and placement of 1,000 students during the first year of operation with corresponding expansion
2.	in following years;
3.	Measure the performance of students on the job;
	Increase the effectiveness of classroom instruction by relating it more closely to practical application in the community;
4.	Increase the ability of students to cope with an adult environ- ment:
5.	Identify and strengthen the ability of students to deal with inter-personal relations;
6.	Assist students in adjusting to productivity and creativity in the day-to-day world of work;
7.	Help students learn to earn money and to budget expenses;
8.	Provide an expensive to early money and to budget expenses;
•	Provide an opportunity to choose a career direction in an
	environment where information and direction by professional counselors is available;
9.	Gain the use of the "laboratories of industry" and to have access to sophisticated equipment that would not be available on the community college campus;
10.	Identify future employment opportunities;
11.	Make contact with annothing and assets and
12.	Make contact with specific employers for work experience;
14.	Learn to know and understand the community from a different perspective than is possible from classroom experience; and
13.	Develop student initiative, motivation, insight and responsibility through periods of field experience combined with classroom instruction.

Goals for program development are to:

	-
1.	Develop plans and procedures for implementing efficiently and
	effectively a vocational cooperative education program for
	transfer to other schools;
2.	Develop instruments for measuring student progress;
3.	Develop methods of special assistance to disadvantaged youth;
4.	Identify the major employment areas and prepare students for employment in these areas;
5.	Document student performance and skill development in personal inter-relationships which may result from the work school educational plan;
6.	Increase the effectiveness of counseling procedures;
7.	Increase the effectiveness of job development procedures;
8.	Obtain data which will be of assistance in developing more
- •	effective programs in vocational cooperative education;
9.	Improve the educational programs of the community college by
	providing more extensive feedback from the community through student employment;
10.	Develop effective means for identifying the educational needs
	of the community through student and employer response rather
	than abstract planning from reviews of projections; and
11.	Develop "open-ended" vocational cooperative education plans
-	which effectively encourage students toward realistic career
	goals.
	U

PROGRESS TOWARD OBJECTIVES

In the original project design six substantial objectives were stated as

attainable within the proposed limits of time and financial support.

Excellent progress toward achieving these objectives has been made.

Highlights would include: (1) favorable student response beyond original expectations, (2) development of cost-effective procedures for implementing and maintaining cooperative programs; (3) expansion of efforts toward K-14 career education articulation; (4) development of procedures for learning achievement through performance objectives for on-the-job experience; (5) expansion of developmental efforts to provide special services to disadvantaged students, veterans, physically handicapped and others; (6) expansion of efforts toward re-training and upgrading through cooperative education; (7) development of in-service preparation for co-op coordinators; (8) emphasis on careers for women; and (9) demonstrating transferability through written information and visiting educator interaction with five college faculties.

Objective 1. Establish a substantial national demonstration model for community college vocational cooperative education.

Progress: To test a concept and demonstrate its implementation in large organizations it is essential to maintain development until the principle of "critical mass" is achieved. In the case of this project it is now assured that within the three year demonstration period a substantial impact will have been made on the five institutions. Observations yet to be made in the final year include (1) the level of student interest which continues to grow; (2) the impact upon faculty including the process of in-service growth in coordination with business and industry; (3) improvements in procedure; and (4) the level of transferability through interaction of visitors with consortium faculty and written requests for information.

107

PROGRESS TOWARD OBJECTIVES

Objective 2. Demonstrate the effectiveness of <u>alternate semester</u>, <u>parallel and extended day plans</u> for community college vocational studies which include paid work experience in business, industry and civic agencies of the community.

Progress: At this point there is evidence that the three plans identified as alternate semester, parallel and extended day will become the procedures used in most community colleges. The terms are being used extensively in the literature on cooperative education and this model is serving as a basic design for others. Business, industry and civic agencies see one or more of the plans as the system that will work for cooperative education student employees in their organizations.

Objective 3. Prove the effectiveness of recruiting, development and coordination procedures planned for a consortium effort of five California Community Colleges enrolling 1,000 cooperative education students during the first year of operation with comparable annual increases in numbers during the three years of demonstration.

Progress: Recruiting, development and coordination have been refined substantially throughout the period of project implementation. It is anticipated that by the end of the demonstration that tested procedures can be disseminated with assurance that they will be effective. Extensive additional testing is now occurring in other community colleges.

Objective 4. Prove the effectiveness of vocational cooperative education in recruiting and maintaining disadvantaged students who would not otherwise enter community college vocational programs.

Progress: Special developmental efforts are being undertaken on each of the five campuses to provide special coordination, counseling, recruiting and job development for disadvantaged students. On several campuses bi-lingual Mexican-American coordinators are directing special efforts in cooperative education. Three of the campuses have coordinators specifically serving the needs of Black and other ethnic minority students. Articulation services are being developed and tested between high school special programs and community college cooperative education to assure opportunities for those students who wish to participate in cooperative education. Employers have been particularly helpful in assisting with this development area since they are under substantial pressure to increase their number of disadvantaged employees. Cooperative education serves as a valuable method of recruiting and training for these employers and students.

PROGRESS TOWARD OBJECTIVES

Objective 5. Demonstrate the effectiveness of vocational cooperative education in solving the <u>technical</u>, <u>business and paraprofessional manpower recruiting and training problems of business and industry</u>.

Progress: Cooperative vocational education is proving to be an efficient method for employers to use the resources of the community college to gain initial contacts with future employees.

Alternate periods of employment while participating as a student in community college programs serves as a self-selection "screening in and screening out" process which is to the advantage of both employers and students. Students have access to better jobs than they would be able to locate by themselves. They gain an understanding of the working environment and the demands of the job. At the same time the employer is able to observe the future employee in a temporary employment relationship which is not binding on either the student or employer. The period of in-service training is reduced and both gain the benefits of cooperative education.

Objective 6. Demonstrate the effectiveness of television instruction and coordinated instruction systems in providing "outreach" instruction and counseling for off-campus students in cooperative education with particular emphasis on career orientation for elementary and secondary school students.

Progress: Four local-use television programs have been put on the air to provide career information including the concept of cooperative education for elementary and secondary school students. Secondary school students particularly have been assisting in the preparation of ideas and script for films to be presented at their level. Follow-up studies show substantial gains in understanding and interest when these films and videotapes are used with elementary and secondary school groups.

Related and potentially highly-effective activities are underway in development of a county-wide comprehensive elementary-secondary community college K-14 career education development program with community college cooperative vocational education as a coordination component.

THREE PATTERNS

Three patterns of cooperative work experience education programs have

proven to be effective. They are designated as the alternate semester program, the parallel program, and the extended day or evening college program. Each contains a necessary common element—an action link—of coordination between the on-campus instructional program and the field experience provided away from school.

The three plans which provide regular work experience related to college studies and career goals of the students are:

Alternate Semester: Two students hold one full-time work station on a year-around basis. During each semester, one student is in school while the other works full time. Working students may elect to enroll in a limited program of evening classes. No limitation is placed on the location of the work experience. Students may be employed in other states or in distant cities.

<u>Parallel Plan</u>: Students hold part-time, afternoon, evening, or swingshift jobs with appropriate community college classloads.

Extended Day or Evening College New Careers: Special arrangements are made for studies related to full-time employment and new career goals of students. Employers cooperate in work assignments and supervision.



Through community college cooperative education students are attracted to career programs because of employment advantages and new learning opportunities. An open-ended curriculum arrangement allows these students to move ahead into upper division studies in state colleges and universities.

Research shows several important factors about cooperative education:

Students gain a deeper understanding of the relationship between classroom theory and practical application.

Community involvement through direct experience adds a new dimension to the educational process.

College is more attractive to many students because of the combination of work and study.

Productive employment under realistic competitive conditions in a real-life environment provides students with insights that enrich their educational experience.

Improved employment opportunities are available to graduates as a result of community internship experience.

Employers are provided a method for obtaining highly-motivated, responsible employees on a regular full-time or part-time basis.

PROGRAM PROCEDURES

The experiences of a typical student in community college cooperative education

includes participation as a freshman in orientation conferences to prepare for the job that will be undertaken after the first campus semester.

Together with an advisor the student decides upon a job to apply for, after talking over his interests, educational needs, future plans, past



work experience and job openings. He can see other students' reports about the jobs. Students' needs and desires are considered in matching students with available jobs, and placements are made by cooperative education coordinators.

The student's first job has possibilities for broadening his experience, for self-development and for exploring different careers. A young student may gain poise and command of peoples attention as a teacher assistant. An insight into the workings of a bank, department store, travel agency, recreation department, government agency, or industrial plant may be gained through working in these situations. The work station may serve to provide for student needs in career guidance as well as educational growth.

The cooperative plan is not a complex operation. Work periods in the alternate plan are based on the length of the semester. While one student is working, his counterpart is studying on campus. Since students alternate between study and work periods, each job can be filled continuously by a series of qualified students. The parallel and extended day plan do not require student exchanges.

Once or twice each work period a coordinator visits the employer and the student on the job to discuss the employment experience and make arrangements for other students whom the employer may wish to hire. The cycle is completed on a year-around basis as two students change jobs at regular intervals or continue to full regular employment.

INSTITUTIONAL DESCRIPTION

Caffada College, College of San Mateo and Skyline College of the San Mate

Junior College District -- California public community colleges -- enroll a total



of 27,500 students with an average daily attendance of 16,437. Orange Coast and Golden West College of the Coast Community College District enroll a total of 28,586 students, with an average daily attendance of 16,801.

The San Francisco Bay Region population is in the range of 3.5 million people with 650,000 located in San Mateo County--the service area of the northern three colleges. In Southern California the Coast Community College District serves directly the more than 500,000 population of south-central Orange County. The total county population is in excess of 1.4 million. Direct impact of cooperative education project is reflected on a southern California population in excess of 4 million people in surrounding areas.

The San Francisco Peninsula in the north is an urban and industrial center which includes San Francisco International Airport which generates many aviation and transportation service-related business and industries. In the southern component the major employers are aerospace industries, including electrical machinery, automotive and tractor manufacturing, ordnance and aircraft production.

Considering the service areas of the five colleges it is noteworthy that as a result of the cooperative programs there are now over 8,000 coordinator interaction conferences with employers of the communities each semester. A substantial reservoir of enthusiasm and good will is being generated among employers from this new activity.

PROGRESS INDICATORS

As a means of reporting about various segments of innovation within the five college cooperative education project a sampling is provided of Progress Indicators. Complexities of operation in a substantial new development such as the consortium makes it difficult to present an all-encompassing condensed version of progress that might be desirable. This sample technique however may provide the overview that will be of assistance to those who are interested in developing similar programs.

Progress Indicators are provided under the following headings:

- 1. Enrollments in Consortium Cooperative Education, Spring 1972
- 2. The Community as an Experience Laboratory
- 3. Cooperative Education by Student Performance Objectives
- 4. Growth Problems: Developmental Decision Making
- 5. Educational Assistance for Returning Veterans
- 6. Cooperative Education for the Physically Handicapped
- 7. Use of Computer Program in Cooperative Education
- 8. Cooperative Education Workshop
- 9. New Careers for Women Through Cooperative Education
- 10. A New Coordinator Reports on Progress After One Semester
- 11. Articulation with Elementary and Secondary Schools
- 12. Career Education K-14, A Model
- 13. Evaluation Questionnaire
- 14. Law Enforcement Program Improvement Through Cooperative Education
- 15. Statements from Students, Coordinators and Employers



-15- **16**

PROGRESS INDICATOR 1

COMMUNITY COLLEGE VOCATIONAL COOPERATIVE EDUCATION ENROLLMENTS IN FIVE COLLEGE CONSORTIUM Spring Semester, 1972

COAST COLLEGE DISTRICT

Orange Coast College		Golden West College	
Technology Business Agriculture * Consumer and Health Physical Education Physical Science and Math Fine Arts Literature and Language Child Care and Guidance Psychology Total	405 410 54 57 17 3 42 30 38 82	Business Social Science Fine & Applied Arts Technology Math and Science Recreation Communication Total	323 294 22 182 40 23 14 898

Total Enrollments Coast College District: 2,036

SAN MATEO COLLEGE DISTRICT

College of San Mateo		Caffada College	
Aeronautics	60	General Cooperative	172
Agriculture	10	Education	40
Art and Architecture	54	Police Science	32
Business	233	Psychology	37
Education	296	Food Technology	31
Fire Science	2	Home Economics	9
Forestry	4	Recreation Education	22
Engineering	47	Business	25
Home Economics	32	Social Science	55
Journalism	10	Mental Health	10
Library Science	. 2	Total	433
Allied Health	60		733
Police Science	44	Skyline College	
Real Estate	3		
Recreation	5	Business	144
Public Science Careers	76	Undeclared	156
Science	22	Public Service	82
Technology	36	Physical and Recreation	45
Welding	3	Extended Day Plan	82
Undecided Majors	144	Total	509
Total	1,143		209

Total Enrollments San Mateo College District: 2,085

TOTAL ENROLLMENTS FIVE COLLEGE CONSORTIUM: 4,121

PROGRESS INDICATOR 2.

THE COMMUNITY AS AN EXPERIENCE LABORATORY

Cooperative Education in community colleges is proving to be a valuable cost-effective vehicle to bring about educational use of the multi-billion dollar laboratory which is the sum total of business, industry and civic agency activity within the community.

1800 employers are assisting the community college students in the five college consortium to improve their skills, to expand their career opportunities and to gain the benefits of on-the-job interaction with regular employees.

College instruction is enriched by the "feedback" of students who are deeply involved in assignments which have real meaning in the important work of the community. Students have the opportunity to influence their own career destiny through the process of seeking out experience that can be gained only through employment.

It is estimated that 25% of community college students of the 1980s will be enrolled in cooperative education programs. All of the change indicators in higher education point toward greater student "involvement", toward direct participation of students in real-life activities rather than simulated experiences.

From the standpoint of the community, cooperative education can be the means for training, re-training and upgrading of those who need more education for career competence. Changing employment patterns of the future will no doubt require the kinds of flexibility of training inherent in the cooperative educational design.

Enrollment of 4,121 students in alternate semester, parallel and extended day cooperative education assignments clearly places the five college consortium in a position of national leadership for the development of these innovative procedures in community colleges.

PROGRESS INDICATOR 3.

COOPERATIVE EDUCATION ACHIEVEMENT BY PERFORMANCE OBJECTIVES

Plans for involving students in objective settings as a part of their cooperative work experience program were initiated early in 1971. While somewhat awkward in the beginning, indications are that the plan permits clearer understanding by students, employers and coordinators of what cooperative work experience education is all about. In carrying out this function coordinators need to receive in-service training in objectives-setting, since it is essential that they be able to demonstrate the technique to students and employers. It is not an easy task. Instructors report that they must spend more time with each student in order to identify objectives. Students find it difficult at first to write meaningful and measurable objectives.

It should be noted that this phase of cooperative work experience education occurs within the first three weeks of each semester. An additional important contribution is the opening of dialog between the student and employer in the process of developing objectives. In the past instructors reported acting as intermediaries between non-communicating students and employers. While this is still occasionally reported, the necessary dialog between student and employer in planning objectives has substantially reduced this lack of communication. Students, instructor coordinators, and employers are nearly unanimous in expressing satisfaction and a sense of accomplishment in moving forward with the concept of student performance objectives in off-campus job experience.

On the following pages are given two examples of stated learning objectives as prepared and carried out by students, coordinators and supervisors. The first shows a student in computer science; next is a student who has a cooperative job in accounting. An example of recording forms for use in a multi-college district is also provided.



ORANGE COAST COLLEGE COOPERATIVE EDUCATION

April	14,	1972	
MTF			_

IBM Corporation	Robert W. McFarland
EMPLOYER	STUDENT'S NAME

STATEMENT OF JOB-ORIENTED LEARNING OBJECTIVES

Each semester that a student is enrolled in the Cooperative Education Program it is necessary that the college help the student determine what new or expanded responsibilities or learning opportunities are possible on his job. These objectives enable us to determine the units of credit that will be granted for work experience.

These objectives should be specific and measurable. They will be reviewed with the supervisor. At the end of the semester the student/employee and the supervisor will be asked to evaluate the level of attainment of each objective

be	asked to evaluate the level of attainment of each objective.	e superviso	er will
1.		Student	TERM RATING * Supervisor
		(1)	3 24
2.	The second secon	(2)	3 Ref
	applications knowledge to maintain good customer relations.	(3)	3 V PS/
3.	Take initiative to improve overall territory operations	(3)	
	utilizing latent ability to become a leader rather than a follower.	(4)	2 R 5
4.	Average 120 inspections per month under revised inspection pro-	(5)	
	cedure, i.e. R.I.P., to maintain current territory.		
5.			
٦.			
			•
	* <u>Ra</u>	ting Scale	
	1 = Limited	accomplis	mente.
	2 = Average	accomplish	ments.
	3 = Better	than averag	ge accomplishments
	4 = Far exc	eeds averag	ge accomplishments
	AGREEMENT		,
to	the undersigned agree with the validity of the learning objective employer and the college agree to provide the necessary supervisionsure that the maximum educational benefit may be achieved for the experience.		
stu	ere are three participants in the Cooperative Education venture. Ide by the Cooperative, Education guidelines. The supervisor will ident's job performance at the end of the grading period. The collection work successfully accomplished.		
Z	ELLAS	Techno	4-13-72
Sti	ident's Signature Supervisor 6	i on ohumo	

. . .

-19-

Director

Distribution:
pink: Office of Cooperative Education, Gold & Employer, Yellow: Student, White: Rated at
end-of-term to Office of Cooperative Education.

ERIC Full Text Provided by ER

ORANGE COAST COLLEGE COOPERATIVE EDUCATION

March 23, 1972

Frank	Α.	Oldmen,	CPA	
EMPLOYER				

Janice A. Hirsch
STUDENT'S NAME

GRADE = A

VY173 : 4

STATEMENT OF JOB-ORIENTED LEARNING OBJECTIVES

Acct. 684

Each semester that a student is enrolled in the Cooperative Education Program it is necessary that the college help the student determine what new or expanded responsibilities or learning opportunities are possible on his job. These objectives enable us to determine the units of credit that will be granted for work experience.

These objectives should be specific and measurable. They will be reviewed with the supervisor. At the end of the semester the student/employee and the supervisor will be asked to evaluate the level of attainment of each objective.

io be able to do a bank reconciliation quickly and accurately.
 By June to understand the preparation of payroll and to prepare payroll tax returns.
 During the semester to be able to write up basic

(2) 3 3 (3) 4 4 70 (4) 4 4

END-OF-TERM RATING *

Supervisor

cross-footings.
To prepare simple Federal and California Income Tax

9H

Returns.

To determine how to analyze the accounts in the General Ledger.

* Rating Scale

- 1 = Limited accomplishments.
- 2 = Average accomplishments.
- 3 = Better than average accomplishments.
- 4 = Far exceeds average accomplishments.

AGREEMENT

We the undersigned agree with the validity of the learning objectives listed above. The employer and the college agree to provide the necessary supervision and counseling to insure that the maximum educational benefit may be achieved for the employee/student's work experience.

There are three participants in the Cooperative Education venture. The student agrees to abide by the Cooperative Education guidelines. The supervisor will evaluate the employee/student's job performance at the end of the grading period. The college will award academic credit for work successfully accomplished.

Student's Signature

Supervisor's Signature

Instructor/Codydinator

Director

Distribution:

pink: Office of Cooperative Education, Gold & Employer, Yellow: Student, White: Rated at end-of-term to Office of Cooperative Education.

-20-

ERIC Full text Provided by ERIC

SAN MATEO JUNIOR COLLEGE DISTRICT COOPERATIVE EDUCATION WORK EXPERIENCE AGREEMENT

Skyline CSM C	Canada	STUDENT	
EMPLOYER (Company Name)		SEMESTER	YEAR
they should be specific, measur student, reviewed and approved	by both the employer and coord loyer and student will discuss the om this rating plus seminar discus	to accomplish. The objecti linator at the beginning of progress made in attaining sions, individual conference	ves must be formulated by the the semester. the objectives and independents, term assignments and on-the-
A	Objectives		Rating
_			
		В.	
			·
_			
		D.	
		E.	
		H	ated By:
Rating Scale: 1 — Accomplished 2 — Made some p 3 — Failed to mal	Objective rogress towards objective se any significant progress		Title: Date:
We agree with the validity onecessary supervision and counsel work experience.	of the learning objectives listed a ling to insure that the student/en mployer will provide adequate	nployee receives appropriat	e educational benefit from this
	-21-		
EMPLOYER'S REPRESENTATIVE	STUDENT'S SIGNATURE	Coor	OINATOR'S SIGNATURE
TITLE	EMPLOYER'S FILE CO	DPY .	22

Value to the Students of Cooperative Performance Objectives

In addition to receiving additional attention from coordinators and supervisors, the preparation of learning objectives provides a valuable experience for the students. Many students use this opportunity to gain definite communication with their supervisors in terms of what is actually expected of them. One student saw the objectives as a vehicle to gain a recognition from her employer of what her job had actually developed into over the year in which she held the position. She had been unsuccessful in previous attempts to bring this to his attention.

Still other students seize the opportunity to learn a new phase of their jobs or to accomplish further learning in areas with which they had previously not done much. A few students use the objectives to accomplish projects they had been unable to find time for in the past. One student confided that one of her objectives was something both she and her supervisor had wanted accomplished and by listing it as an objective she knew her supervisor would assure that time was made available to accomplish it. Value to Employers

Employers also see many possibilities in using the objectives approach. They become more aware of opportunities to train students in new areas or to work on problems previously difficult to define. Many of the employers indicate that they had been involved in management by objectives or evaluation by objectives and were happy to see that community colleges also were approaching the evaluation of progress in this manner,

Value to the Instructor: Golden West College Coordinator Report

Once again just the opportunity of visiting varied business offices was a valuable experience for me. One of the most exciting things that happened this semester was placing a student who had graduated as an Administrative/
Technical Secretary major on a full-time job with one of the companies I have



been visiting since the inception of the work experience program. The student called to let me know she was looking for a job in the technical area. I called the personnel office of her company. They indicated that there were no openings at present, but that they would like to talk to the student.

About two weeks later the employer called me for a reference and indicated the student would begin work the following Monday. The student is enthusiastic about the job, and the company is happy with her work.

PROGRESS INDICATOR 4.

FIVE COLLEGE CONSORTIUM GROWTH PROBLEMS

Developmental Decision-making

Constantly among the five colleges there is the need to come to grips with developmental problems that emerge in cooperative education. It is obvious at this point that there is a substantial student demand for a program. Administrative and budget decisions must be made however which have an impact on future directions of growth.

The first decision to be made is in regard to individual college porgram size. Experience in two years has shown that a rapid rate of growth is experienced which is well beyond that which was expected when the project started. In two years enrollments rose from less than 200 in related programs which were brought under the cooperative work experience umbrella, to over four thousand students in fall 1972. Growth beyond the present enrollment in response to student demand requires decisions regarding budget and staffing.

Among problems that relate to this first decision are these:

- 1. Campus directors of cooperative education become deskbound and need to be free to do public relations work within the community, to work with high schools and to meet with prospective employers.
- 2. On-campus information sessions need to be developed further to identify students who are interested and capable of completing cooperative education assignments.



- 3. The problem of student placement needs further attention with regard to relating of student abilities to the excellent work stations that are going unfilled. Assistance from courselors and instructors needs to be developed.
- 4. Instructor-coordinator staffing must be related to the student enrollment either by a) adding instructors from other divisions;
 b) adding full time coordinators, or c) adding part-time instructors reassigned to cooperative education.
- 5. Development of more efficient registration procedures is needed.
- 6. Clerical assistance probably should be increased.
- 7. Analysis needs to be made of a method of assignment of instructors relative to overtime or regular assigned staff time.
- 8. Consideration needs to be given to the special problems of veterans, adults, fulltime workers and others needing upgrading and retraining including educational development of new careers for women.

PROGRESS INDICATOR 5.

EDUCATIONAL ASSISTANCE FOR RETURNING VETERANS

Veterans are responding favorably to cooperative education. Initial response generally indicates that veterans are interested in employment as well as college. They no doubt enter cooperative education initially as a means of finding good employment in areas in which they wish to train. It is apparent, however, that a change of attitude occurs over a period of one or more semesters. A more positive approach develops toward continuing in community college for the values of learning as well as gaining employment.

Veteran service agencies are cooperating with the community colleges in support of cooperative education work experience for veterans. Because of the continuing availability of GI Bill benefits for cooperative education this plan is receiving the attention of veterans.

Employers particularly speak out in favor of hiring returning veterans through co-op. The alternate semester or parallel plans, particularly, allow



-24~

the veteran to get his feet on the ground in the work situation as well as gaining the benefits of college. Supervisors are very supportive. Special attention by employers is given from the standpoint of service to the veterans as well as for the purpose of gaining good employees who are mature and ready for the labor market.

PROGRESS INDICATOR 6.

COOPERATIVE EDUCATION FOR THE PHYSICALLY HANDICAPPED

Hearing-impaired people have a difficult time getting and holding jobs. However, through cooperative education, substantial gains have been made in gaining employment for students with hearing loss. Serving as teacher aides for other physically handicapped students in elementary schools has proven to be one good area of employment. Children are able to relate closely with older community college students who have learned to cope with physical impairment. Deaf students particularly relate well between the age levels of community college and elementary school.

New developments for handicapped students indicate the possibility of work experience in computer operations, manufacturing, record-keeping, accounting and special recreation programs. Community college students now are saying that through cooperative education they are able to go beyond the traditional confinement to power-sewing, news-stands or warehousing.

Report from Dan Clere, Coordinator of Handicapped Co-op Students at Golden West College

Cooperative education experience is a requisite to a hearing-impaired student's continuing personal growth and education. "Vocational guidance programs will not be effective unless they bring the student face to face with the actual conditions of employment. Such orientation to employment must be conducted by counselors skilled in the communication media of the deaf." (From Office of Education Recommendations on Deaf Education)

A deaf student's education is not complete until he experiences the impact of the work world. Here, fact meets fiction, immature thoughts mature, and fantasy encounters reality.

The students' experiences are as varied as the individuals themselves. One young man, a recreation major, is an expressive and receptive aphasic with no hearing loss. He presently is working as a playground recreation leader with pre-teenaged children. His major problems are language and his limited experiences. Through close one-to-one contact, frequent nudgings and encouragement, he is exploring, risking and testing his environment. His goals are to develop competency in his skills and to become aware of his strengths.

The second student is a severely deaf, bi-lingual, bi-cultural young woman who desires to become a teacher's aide. In our interaction we encounter language limitations as well as underdeveloped conceptual development. As with the others with whom I worked, she found it particularly difficult to write behavioral objectives without assistance. The exercise was especially reinforcing for this young woman, since it helped structure and clarify her thinking. She profits from and learns best through trial-and-error experiences. Thus behavioral objectives give her a reference point. She is conscientious, attentive and works well with the students. One problem that she experienced was that she was annoyed with some of the menial tasks she was asked to do. Her goal is to reality-test her academic goal and broaden her classroom experiences.



-26-

The third student is an adventiously deaf mother who is the least dependent of the students. She is the most articulate and experienced of my students. She wants to test her goal of becoming a teacher at the elementary or junior high school level. Her difficulties seem to be in the area of asserting herself and being confident in her activities. She finds satisfaction in her duties and, since her semester's work, has re-evaluated her goal of becoming a teacher.

Concerning learning objectives, my students had difficulty grasping the idea of behavioral objectives. But in time they know what is expected of them, and they have to perform an activity that is definable and that only they can do.

In conclusion, cooperative education optimizes my students' personal and vocational development, since it enhances their studies, makes their interactions with me more meaningful and relevant and challenges their capabilities in the work environment.

PROGRESS INDICATOR 7.

USE OF COMPUTER PROGRAM AS RELATED TO COOPERATIVE EDUCATION

It is noteworthy that the computers can be used to simplify the process of enrolling, follow-up, evaluation and articulation of cooperative education students. Details can be handled by the computer. Computer print-outs can be made available for example of students who are identified as disadvantaged, those who are working with companies of specific size, information on employers of specific students, academic grades and other data of this kind. Research can be carried out on progress toward work experience objectives. Follow-up studies on retention, attitude and employer comments can be summarized through the computer. This electronic tool can be extremely useful in moving cooperative education forward.



COOPERATIVE EDUCATION DATA SHEET BY COMPUTER PRINTOUT

WORK EXPERIENCE - AUDIT SHEET

Pg. 89

SUMMER SESSION 1972 GOLDEN WEST COLLEGE AS OF 07/01/72

INSTRUCTOR ARONSON, E.

* * * * * * * * * * PERSONAL * * * * * * * *

I.D.# : 71-53103 MAJOR : BUSINESS MGMT & MARKETING

NAME: BORGERSON JAN L STATUS: ADDRESS: 17082 CAMELOT CIR SEX:

ADDRESS: 17082 CAMELOT CIR SEX:
HUNTINGTON BEACH 92649 TELEPHONE: 846-6371

EMPLOYER: CROWN CLEANERS

ADDRESS: 5935 WARNER AVE.

SUPERVISOR: JACK ENLOW
TELEPHONE: (714) 8464221

HUNTINGTON BEACH

NUMBER OF UNITS ATTEMPTED: 16.0 NUMBER OF UNITS COMPLETED: 16.0 CUMULATIVE G.P.A.: 2.38

WORK EXPERIENCE UNITS COMPLETED:

* * * * * * * * * CURRENT GRADE INFORMATION * * * * * * * * *

NUMBER OF UNITS ATTEMPTED:

NUMBER OF UNITS COMPLETED:

CURRENT G.P.A.:

NUMBER OF WORK EXPERIENCE UNIT

4.0

TICKET # COURSE NAME INSTRUCTOR TIME AND DAY UNITS GRADE

1554 ECON 1A GENET D 10-12 MWF 3.0 1574 PHIL 15 GRIMES P 7-10 MW PM 3.0 8-10 MWF 1576 POL SCI 1 MILLAR R 3.0 STRANDBERG K 20 HRS ARR 1934 GN BUS 86A 4.0

PROGRESS INDICATOR 8.

COOPERATIVE EDUCATION WORKSHOP

Dissemination of information about community college cooperative education has been underway with particular strength demonstrated by the Coast District in offering a California state-wide conference for college administrators and coordinators of community college cooperative education work experience programs. The conference was held February 24, 25, 26, 1972 at the Disneyland Hotel, Anaheim, California.

Mr. Vaughn Redding, Coast District Director, with the assistance of Mr. Jim Garmon, coordinator from Orange Coast College and Mr. Karl Strandberg, coordinator at Golden West College provided leadership for the conference. Moderators from colleges and from employers served to lead the discussions. Problems were identified and solutions sought through shared experience.

Major speakers included Mr. Leland Baldwin, Vice Chancellor, California Community Colleges, Dr. Norman Watson, Chancellor, Coast Community College District, Dean Roy L. Wooldridge, Vice President, Northeastern University, Boston and Mr. Clifford Fields, Dean of Careers, Malcolm X College in Chicago. Dr. L. O. Brockman of California State College at Fullerton, California served as workshop evaluator. The following topics were discussed:

A Chancellor's Views on Cooperative Education
Planning and Seminars for New Coordinators
Job Development and Employer Relations
Cooperative Education: Now and in the Future
Cooperative Education for Evening College Students
Planning and Organizing Cooperative Education Program
Placement and Coordination of Minority Students
Pay for Coordinators and Program Budgeting
Developing the Alternate System
Student Learning Objectives
Related Information Classes and Independent Study
Working with the Veterans Administration
Managing Cooperative Education with Computer Utilization

Fifteen leaders from industry and education in the field of cooperative work experience education participated as members of the planning and organization committee in the development of the conference. Planning committee members served a dual role in carrying out the functions of session leaders as well as planners. The final workshop evaluation report indicated the need for more cooperative education conferences of this type.

PROGRESS INDICATOR 9.

NEW CAREERS FOR WOMEN THROUGH COOPERATIVE EDUCATION

Community colleges can provide leadership in opening the doors to new employment opportunities for women. Through cooperative education it is evident that careers for women can be improved.

Mrs. Tannisse Rost of the evening division of Caffada College provides the following report on the need and opportunity for new development.

"The life expectancy, employment life expectancy, marital and childbearing patterns of American women have undergone drastic changes in recent decades. In turn those changes have had a massive impact not only on the women, but on the individuals and institutions around them--their husbands, children, employers, helping agencies and educational institutions. It comes as a shock to realize that women themselves and the society around them are largely unaware of the impact of these changing life patterns and how to plan wisely to deal with them.

"Confronting the statistics gathered by the California Commission on the Status of Women presents the challenge as well as the diversity of the problem:

Women today live substantially longer than their counterparts half a century ago. The life expectancy of a woman in 1900 was 48 years--2.8 years longer than her husband. Today that life expectancy is 75 years and still climbing!



About half of today's young women are married by age 20; they will have had their last child by about age 30; and by the time the youngest child is in school, the mother will have close to 40 YEARS OF LIFE AHEAD TO PLAN FOR.

In 1920 the average woman worker in the nation was single and 28 years old. In 1968 the median age was 40 and the average woman worker was married.

More than half of today's young women will work full time for 25 years or more.

The percentage increase of California women workers in the last nine years has been nearly 50 per cent. (48.3)

The overwhelming majority of California women workers are members of the work force from economic necessity and women workers tend to be concentrated in low-paying jobs.

The number of women-headed families on welfare in California has nearly doubled in the last two years. In 1968 the number of such families was 158,000. In 1970 the number had increased to 296,000.

The number of divorces granted in California during the last decade has increased by 148 per cent. From 1960 through 1970, 678,000 final decrees of divorce were granted, and 60 per cent of the families involved had children under 18.

More than 1 in 10 families in the nation are headed by a woman, and women-headed families have increased by twenty-four per cent during the last decade. Thirty-six per cent--numbering 1.8 million women-headed families--had incomes below the poverty level in 1970.

More than a million children in California need child care because their parents work, and the total capacity of licensed or supervised childcare facilities, whether public or private, profit or non-profit, will accommodate only 125,000 children.

At the turn of the century, women workers in California accounted for 13 per cent of the work force. In 1970 3,000,000 California women worked outside the home and comprised over 37 per cent of the total work force. The trend is not a temporary phenomenon. Between 1960 and 1970 their numbers increased by 55.5 per cent.



-31-

Forty-two percent of California's teenage girls doubt their ability to be successful in chosen fields of work, and most do not see themselves as achievers.

Teenage girls lack understanding of the need for re-training or education as they grow older.

In one California Status of Women Commission study, teenage girls were asked for their view of their futures. Only 31 per cent planned on college; a scant 3 per cent saw a need for education or training at age 30, and only 2 per cent at age 40.

"The cause-and-effect relationship of these facts and conditions is clear. Girls wo do not see themselves as achievers don't get education or training for work with much economic potential. If they are divorced and have small children, lack of child care at a cost they can afford often places them in poverty or welfare.

"Because a working mother must care for home and children in the evening, added education for a higher-paying career is difficult if not impossible. Vocational Cooperative Education in community colleges is one effective solution to this problem for women."



Cooperative Education Employer Evaluation of Student On-The-Job Performance

(N = 650 student evaluations)

Measured on a 5.00 Judgment Scale

| | Measured on a 5.(| no nagme | ent Scal | e |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------|------------|
| RELATIONS
WITH
OTHERS | Exceptionally well accepted Works well with others Gets along satisfactorily Difficulty working with others Works very poorly with others | 4.22 | 34%
56%
9%
1% | |
| JUDGMENT | Exceptionally mature Above average in making decisions Usually makes the right decision Often uses poor judgment Consistently uses bad judgment | 3.79 | 21%
37%
41%
1% | |
| ABILITY
TO
LEARN | Learns very quickly Learns rapidly Average in learning Rather slow to learn Very slow to learn | 4.24 | 41%
42%
16%
1% | = |
| ATTITUDE APPLICATION TO WORK | Outstanding in enthusiasm Very interested and industrious Average in diligence and interest Somewhat indifferent Definitely not interested | 4.00 | 23%
57%
17%
2%
1% | <u> </u> |
| DEPENDABILITY | Completely dependable Above average in dependability Usually dependable Sometimes neglectful or careless Unreliable | 4.18 | 43%
33%
21%
2% | |
| QUALITY
OF
WORK | Excellent Very good Average Below average Very poor | 4.21 | 35%
51%
14% | |
| OVERALL
RATING | Excellent Very good Average Marginal Poor | 4.10 | 34%
53%
11%
1% | |
| ATTENDANCE | Regular | | 97% | // |
| PUNCTUALITY | Regular -33- | | 97% | - 34 |
| | | | | ~ ★ |



COLLEGE OF SAN MATEO

DEPARTMENT OF CO-OPERATIVE EDUCATION

SAN MATEO, CALIFORNIA

STUDENT REPORT (TO BE PILLED OUT BY STUDENT)

INSTRUCTIONS: The student should complete this portion of the report form and leave it with the employer for his evaluation. The employer should mail this form to the College in the accompanying self-addressed envelope.

| // | James R. | (Middle) Mutitivear Sabh Division A | fir lines | Job Title Stark Clerk | Title Mgr. | Reason Z/Inness | Gross Pay # 1/49, 20 | f ordering + | materials for | V. 510A. | # . a |
|----------------------|----------------|--------------------------------------|------------------------------------|-----------------------|----------------------------|----------------------------------------|------------------------------------------------------|------------------------|-------------------------------|----------------------------|-----------|
| Date August 15, 1971 | Name Smith Jan | (Last) (Last) (Last) | Employing Firm S. F. Bay Hir lines | vin tenance | Supervisor's Name R. Jones | Attendance: Time Late O Times Absent / | Gross Pay: Hour # 2.21
Week # 88.40 | Brief Job Description: | Stacking of parts + materials | inc muninienance division. | Comments. |

the engine

been advanced

rewir

EMPLOYER'S EVALUATION (TO BE FILLED OUT BY EMPLOYER)

The employer will please express his candid opinion of this student as a worker in his employ. Criticisms and comments are earnestly solicited. This information will be utilized by the co-ordinator for the guidance of the student.

| RELATIONS WITH OTHERS | HERS | | ATIT | UDE — APPL | ATTITUDE - APPLICATION TO WORK | ž |
|-------------------------------------------------|----------------|--------------|-----------------|---------------------------|-----------------------------------|-------|
| Exceptionally well accepted | accepted | | ō | itstanding in | enthusiasm | |
| ☐ Works well with others | thers | | ×× | ry interested | Y Very interested and industrious | |
| ☐ Gets along satisfactorily | torily | | ∳
□ | erage in dili | Average in diligence and interest | ş |
| ☐ Has some difficulty working with others | working wit | h others | □ | Somewhat indifferent | Herent | |
| ■ Works very poorly with others | with others | | <u>8</u> | Definitely not interested | nterested | |
| JUDGMENT | | | DEPEN | DEPENDABILITY | | |
| ☐ Exceptionally mature | ē | | S | Completely dependable | sendable . | |
| M Above average in making decisions | naking decisi | ons | □,
₽, | ove average | Above average in dependability | > |
| ☐ Usually makes the right decision | right decisior | _ | Š | Usually dependable | able | |
| ☐ Often uses poor judgment | dgment | | Š | netimes neg | Sometimes neglectful or careless | ss. |
| ☐ Consistently uses bad judgment | ad judgment | | 5 | Unreliable | | |
| ABILITY TO LEARN | : | | QUALI | QUALITY OF WORK | × | |
| ☐ Learns very quickly | | | Exc
Exc | eflent | | |
| Learns rapidly | | | □) | Very good Very good | | |
| Average in learning | | | Ā | Average | | |
| ☐ Rather slow to learn | c | | <u>8</u> | Below average | | |
| □ Very slow to learn | | | | Very poor | | |
| ATTENDANCE: | | <u> </u> | PUNC | PUNCTUALITY | %
X | Freg. |
| | Excellent | Very Good | - P | Average | Marginal | 98 |
| OVERALL RATING: | Þ | | | _ | 0 | |
| COMMENTS (over if Decessary). | cessary). | | , | • | | |
| Chin Sa | a pro | Kn | 4 | 1/2 0 | n proefle | est. |
| Com solves | 7 | 6 1 | Ž | 1000 | li. | |
| Las Role | May Cont | ¥ | | | | |
| | | | | | | |
| | | \$ | ŀ | | | |
| (Signed) | N/ | 3 | 26 | | | |
| | (Con | (Compa / Rei | Representative) | ative) | | |
| This report has been discussed with the student | liscussed wit | h the stu | dent | | ž. | |
| | | | | _ | _
_
? | |

EVALUATION FROM STUDENTS AND EMPLOYERS

GOLDEN WEST COLLEGE, October 1972

Golden West has developed opinion sampling evaluative data as a way of measuring progress and to give direction for the future. Each of the participants (students, supervisors and faculty) have submitted these evaluation reports.

Students were asked to check ways in which the program benefited them. From eight selections the four most often checked (in rank order) were that cooperative education:

- 1. encourages me to continue my education;
- encourages me to take classes that are related to my job;
- allows me to expand upon classroom learning-training;
- 4. allows me to have greater self-awareness.

Supervisors were asked to check ways in which the program benefits their employees. Interestingly, the benefits and rank order were identical to student ratings.

Supervisors were asked to check ways in which cooperative education program is of value to employers. From ten selections the following four benefits (listed in rank order) were most often checked:

- 1. It is important for us to have personnel who are continuing their education in classes related to their job;
- Assists in meeting the employer's training needs;
- 3. Provides employer with a more productive employee;
- 4. Provides an incentive which employers can use to encourage employees to return to college.

The 500-plus employers in the program at Golden West are very supportive of the concept of cooperative education.

-35-



36

PROGRESS INDICATOR 10.

A NEW COORDINATOR REPORTS ON PROGRESS AFTER ONE SEMESTER

The process of developing new professional coordinators to supervise the progress of students in off-campus locations is one of importance.

The thoughts of a new coordinator are spelled out here in a report of Sandra Hangley of Golden West College to Karl Strandberg, supervisor of the program for that college.

* * * *

In reflecting on my first semester as a coordinator in the Cooperative Work Experience program, I found it a most rewarding learning experience. My reaction is one of excitement and increased awareness of the tremendous potential and value to all those involved in this programthe student—the employer—and the college.

I was initially assigned 73 cooperative work experience students.

| 42 | McDonnell Douglas | | |
|----|---------------------|--|--|
| 11 | Xerox Corporation | | |
| 4 | North American | | |
| 16 | Miscellaneous Firms | | |

Of these, 64 completed this semester.

Due to the diversity of students assigned and the lateness of the semester, various methods were used in coordinating these students.

The following is a brief summary of the techniques used and some suggestions for improvement.

McDonnell Douglas and North American

The McDonnell Douglas and North American students were handled as one group--this due to the large numbers as well as similarities and limitations due to their company policies.

Each student attended two group meetings this semester--in April an objective setting meeting; and in June an evaluation meeting. Even through meetings were on a group basis, the setting of objectives and evaluations were discussed individually with each student. It might be noted that



the McDonnell Douglas and North American students seemed to evaluate themselves higher than my other co-op students. I am unsure as to the reasons for this. However, since at present there is no formal employer evaluation done by McDonnell Douglas and North American, some additional evaluation tool might be helpful. One McDonnell Douglas student submitted a detailed status report as to his degree of accomplishment of each objective. This might be a possible requirement for this group next semester—thus providing valuable supplemental information for evaluation.

At the evaluation sessions, students were encouraged to make suggestions for improvement in the program. As a result of these comments along with suggestions made on the Student Report, the following might be implemented for Fall 1972.

- 1. Additional meetings during the semester
- 2. Midyear evaluation would provide opportunity for students to change or modify objectives
- 3. Invite representatives from counseling to an open discussion covering general information transfer requirements, vocational and labor market information
- 4. Invite company representatives to at least one meeting. A number of students expressed desire for employer to become more actively involved in the program.

XEROX

Xerox students were also handled as a group but in a somewhat different manner. The first meeting (setting of objectives) was held at the Xerox facility in Torrance. It was a group meeting which included both students and their supervisors. This approach provided a good opportunity for a three-way interaction between student--supervisor--and coordinator in the objective setting process.

The second meeting (evaluation of objectives) was held on the Golden West Campus and included students and two supervisors. Both supervisors expressed pleasure for the opportunity to visit the college campus. Since one supervisor was unable to attend this meeting, an individual evaluation meeting was held with him at a later date. In contrasting the group meeting (students and supervisors) versus an individual meeting with the supervisor, each approach has its advantages and disadvantages. On one hand a group meeting provides opportunity for supervisors and students to interact freely, however the amount of time spent with each is more limited; particularly when you have the pressure of others waiting. This same problem occurred with the McDonnell Douglas-North American group meetings. Perhaps one way to eliminate this in the future would be to have a smaller number of students in each group meeting.

The Xerox group also expressed the desire for additional mid-year meetings and need for greater accessibility to counseling services.

Miscellaneous Firms

These students from many different educational backgrounds were working in a variety of jobs--service stations, retail sales, manufacturing firms, teacher aides, etc. I might mention that I particularly enjoyed working with this diversified group of students and employers. This provided me a valuable insight into current employer problems and future labor market needs. The student objective setting sessions and initial employer visits were all done on an individual basis. Since many of these students had never been exposed to the process of setting job-oriented learning objectives, a great deal more time was spent individually with each student. It was sometimes quite a struggle in the defining and the writing of these objectives. Yet a real learning experience and a rather exciting one at that for both the student and myself.



Without exception I found myself that the employer-supervisors were a delight to work with. All were most supportive of the program. They were very generous with their time and appeared to have a sincere interest for these students in the program.

The evaluation meetings were primarily on an individual basis with my meeting the student and employer separately. With four students the three-way evaluation was tried: the student, the employer and coordinator meeting together. In all instances the student and the employer had good communication prior to the meeting; therefore, the evaluation sessions were very open, constructive, and over all an extremely positive experience for both the student and employer.

It might be mentioned at this time that a number of students verbalized positive feelings in the use of objectives, felt this approach provided them the direction and incentive to do a better job. For the majority of miscellaneous employers this was their first experience with the job-oriented objective approach. All expressed satisfaction with it. A number of employers reported a distinct improvement in student attitudes on the job since using the objectives. Others were pleased to have specific criteria when evaluating the student as opposed to a "vague progress form".

I personally feel that it would be most beneficial for the "miscellaneous firm" students to hold several mid-semester meetings (perhaps on volunteer attendance basis) where experiences and problems might be shared, vocational and labor market information discussed, and other topics related to student interest covered. These students are usually younger, have had much less exposure to the world of work, and as a result are more apt to have job adjustment problems in a cooperative work experience situation.



PROGRESS INDICATOR 11.

ARTICULATION WITH ELEMENTARY AND SECONDARY SCHOOLS

Developments of career education aspects of the project have focussed on 1) contacts with secondary school work experience feeder programs to assure that students are aware that continuity of co-op experience is available to them, and 2) preparation and showing of films and tapes for elementary and secondary schools. Television broadcast is one of the direct means that has brought the co-op message to younger students.

The significant principle involved is the model of older brothers and sisters attending college through the cooperative plan. Younger student interest is attracted because of unusual experiences and good paying jobs that become available through this kind of college plan. For those who might not plan to attend college because of financial limitations it is evident that career goals can be reached through cooperative education in the community college.

Television films of high quality were completed by both the northern and southern components. The Coast District film entitled WHERE AM I GOING? has been particularly well received. It has been shown to a wide variety of audiences with enthusiastic response. The target audience of the film is secondary level.

Several 35mm slide-sound packages have been prepared to encourage elementary and junior high school students to begin thinking of careers. The message includes the notion that a good way to prepare for many careers is through the community college co-op programs. Evidence that has been gathered indicates that career awareness among young people is increased through the model of "older brother-sister participation".



COOPERATIVE EDUCATION DIRECTORS

take pleasure in inviting you and your guests to an initial showing of

"WHERE AM I GOING"

a Cooperative Education movie produced by
Telecommunications Personnel for

GOLDEN WEST AND ORANGE COAST COLLEGES

Friday evening, the twenty-eighth of April at seven-thirty o'clock

Dessert will be served - Movie will be shown in Studio One - followed by a tour of Telecommunications Center

Golden West College, 15744 Golden West Street Huntington Beach, California 92647

R.s.v.p. Vaughn Redding 834-5623 James Garmon 834-5628 Karl Strandberg 892-7711

125 employers, students and guests participated in the premier showing at the new Telecommunications Center. This gave the participants an opportunity to see themselves in action and to become better acquainted with the emerging role of television in education.

PROGRESS INDICATOR 12

CAREER EDUCATION K-14: SAN MATEO COUNTY-WIDE PROJECT INCLUDING COMMUNITY COLLEGE COOPERATIVE EDUCATION

An innovative approach to the development of career education is getting underway through the joint efforts of the San Mateo District and others in San Mateo County. The basic principle is one of locating within the county those innovative segments of courses prepared by teachers which deal with instruction for purposes of career education. The task is

1) to strengthen the present activities; 2) develop new curriculum materials from kindergarten through community college, and 3) distribute and implement these career materials horizontally and vertically throughout the county.

Vertical articulation units are elementary districts, secondary districts and the community college district which is conterminus with county boundaries. Lateral articulation occurs through meetings of interest groups as for instance all sixth grade instructors, all junior high school instructors or all high school work experience coordinators. The method of career development has been given reference as a "Checkerboard" system.

Through the cooperative education program of the community colleges combined with the academic and vocational instruction provided in regular programs there is the potential for development of a comprehensive model for career education in community colleges. An important component of such a model would be a community guidance center for career awareness, information and consultation as well as instruction.



PROGRESS INDICATOR 13.

| EVA | LUATION-QUESTIONNAIRE: CAÑADA COLLEGE SAMPLE, N=92 | YES | NO |
|-----|------------------------------------------------------------------------------------------------------------------------------|-----|----|
| 0ct | ober 1972 | | |
| 1. | Do you think that Co-op Education has been helpful to you in your educational growth? | 78 | 14 |
| 2. | Has Co-op Education provided you an opportunity to apply classroom theory to the job situation? | 68 | 23 |
| 3. | Do you feel that the knowledge and experience gained from Co-op Education increased your understanding of the world of work? | 74 | 18 |
| 4. | Do you feel Co-op Education has increased your job opportunities in the future? | 58 | 32 |
| 5. | Would you recommend this program to your friends? | 91 | 1 |

"The practical experience of being out of the classroom and into the 'real life situation' is the most valuable part of the program. Being right in the situation, not in a textbook, gives the student the chance to question and have answered those things that are not within the power of the classroom teacher to give. My own rewards, in the good times and the bad times encountered, are all very positive."

"The Cooperative Education Program has been of greater value to me than any project, educational program or any type of classes that I have taken part in. This program has also helped me by giving me the opportunity to tie my other course, Techniques of Business Management, into my actual job. I found that in planning and carrying out my project I had to put into use a lot of the techniques that I was learning. As far as I am concerned, this Cooperative Education Program has to be the greatest thing since Reading, 'Riting and 'Rithmetic. I'd like to thank whoever it was that initiated it into our educational system as well as all of the people who help to carry it out. THANKS!"

PROGRESS INDICATOR 14.

LAW ENFORCEMENT PROGRAMS, COAST DISTRICT

In 1972 seventy-five law enforcement officers were participating in an upgrading program through community college cooperative education. All of these were full-time policemen, highway patrolmen, or sheriffs department employees upgrading their skills and efficiency through community college cooperative education. In addition to regular Associate Degree academic requirements the officers were required to meet one of four options for their cooperative assignments. The objective options included: 1) a departmental experience in which the officer worked a minimum of 16 hours of off-duty time with some other agency in the criminal justice field other than his own; 2) intra-departmental experience, meaning that the officer spent a minimum of 16 hours in off-duty time in some division other than that in which he is assigned within the same agency; 3) development of a research paper on law enforcement in relationship to the regular work assignment during off-duty time, and 4) an administrative designated project in which the officer completed special staff work assigned by his supervisor to improve the quality of local law enforcement.

It is the feeling of those participating that a tremendous learning experience has been provided through cooperative education that has both motivated and enhances their professional experience as law enforcement officers. The Cooperative assignment included attending regular departmental training meetings in addition to spending time in court proceedings. A high level of dedication to department and professional career development is evidenced.

Coordinators of the law enforcement programs feel that this is highly professional approach to gaining academic and skill development in law enforcement. The chiefs of police and other law enforcement officials appear to be highly receptive to this cooperative approach to the development of professional officers.

45 -46-



PROGRESS INDICATOR 15.

COMMENTS FROM STUDENTS, EMPLOYERS AND SUPERVISORS, SKYLINE COLLEGE, CAÑADA COLLEGE AND COLLEGE OF SAN MATEO

Student: Maryanne Marty, Business Major, parallel plan, clerk, Credit Department, Sears Roebuck and Company

The experience I am receiving from this job will not only help me in my career but I feel most of all it will help me to manage my own money and household. Since I have been working in a credit department I have developed strong feelings against buying merchandise on timed payments.

Cooperative Education Supervisor's and Employer's Comment: "Maryanne's employer says she learns rapidly and is a very good employee--well-liked by everyone in the store."

Student: Eugene Doyle, Electronics major, parallel plan, AVTEK Corporation, Burlingame

My job at AVTEK gives me understanding in not only electronics and its principles but in many fields like component checking, engraving, designing, being able to read schematics of the P.C. Card; shopwork like designing, cutting, drilling, taping, grinding, sawing, and many other things including the knowledge gained from the other people in our company. So my job at AVTEK has many things to do with my studies at Skyline. For one thing, it lets me learn about electronics a great deal, a major part of physics which I'm studying at Skyline. And also other things like speech, talking with different people at work. So AVTEK Systems has been and still is helping me in many ways.

Cooperative Education Supervisor's and Employer's Comment: Mr. Bell who is Eugene's boss states, "Eugene is a valuable employee because he is so interested in his work and can be counted on to do a good job."

Student: Jean Sprouse, Business Major, extended day student, Secretary to Police Chief, South San Francisco.

My studies help me and my work aids my studies. Several of the courses I have taken at Skyline have related directly to my work. Introduction to Computerization made me aware of the limitless potential of that field and gave me a simple knowledge of some of its language at a time when we were beginning to explore its possibilities for our business. Basic accounting dovetailed into payroll work and budgeting both of which have been areas of my concern. Human Relations is of constant daily use and value."

COMMENTS FROM STUDENTS (Continued)

Cooperative Education Supervisor's and Employer's Comment: Jean's employer gives her an overall rating of excellent on her job. He says, "She devotes a great deal of time to her duties and anticipates my needs."

Student: Joe Hunter, Sociology major, parallel plan, aide at Opportunities Industrialization Center, San Bruno Police Department

San Bruno Police Department has begun a program to bring minorities into the department. This was done by creating a slot below patrolman known as CSO's or Community Service Officers. The CSO's role is traffic direction, clerical and any other duty that would release the patrolman of menial tasks. Also the CSO works in the community to help the minorities to relate to police as a role of peace keeper, rather than repressor. Through Social Science 11 and contacts with Captain Cann, San Bruno Police Department, over the last semester I have grown to know and respect the role of police.

Cooperative Education Supervisor's and Employer's Comment: Joe's supervisor states, "Joe is a big help in working with the counterculture. He was one of the students most active in this program and was a willing, eager student."

Student: Janet Ynostroza, Public Service Career Major, parallel plan, Training Committee Aide

Working through economic opportunity commission on a daily basis has been a valuable experience for me in many areas; working with people cooperatively every day, actually seeing and sometimes being a part of the red tape procedure and the job that EOC is expected to accomplish. It has certainly been a period of personal growth and has enlightened me in many areas of social services. One of the most enjoyable sections of the aide position was working with the youth organizers, in areas of training development. The enthusiasm of youth is contagious and their receptiveness to new and different ideas is refreshing.

Cooperative Education Supervisor's and Employer's Comment: "This student is making good progress at this time. Should move on to a new role within the center next semester. She is a very good worker and exceptionally mature."

Student: Frank Robinson, Business Major, Extended Day Student, Salesman, Zellerbach Paper Company

In consideration of pursuing a business degree, Zellerback Paper Company is an excellent company for observing the individual aspects of business working together. My sales position provides an excellent training. Daily activities reveal my need for, and the necessity of, additional training and education in the other areas incidental to business, ie: data processing, letter writing and dictation, management psychology and communications, etc.) The Cooperative Education Program should prepare me for a career position with this company, or enhance my qualifications for a related business career.



COMMENTS FROM STUDENTS (Continued)

Student: Etta Carter, Education Major, parallel plan, teacher's aide at junior high for slow students.

I am receiving one unit of credit for cooperative education for my work in James Lick Junior High School. I am working as a teacher's aide. I think my work is very beneficial. Presently I am working with 14 and 15 year olds. Most of these kids are reading way below level and some can't read at all. I work individually with these students tutoring them, trying to help them catch up with their peers. Many of these kids were just ignored through elementary school and they desperately need the attention I try to give them. These kids aren't ghetto blacks or browns. Most of them are lower-middleclass whites. They never had a chance, however, and through the program I'm on they're getting that chance and they're taking advantage of it.

Cooperative Education Supervisor's and Employer's Comment: "The staff at the school are pleased with this student's growth. Etta is a very capable student that has much potential.

Student: Kimberly Taufer, Business Major, parallel plan, Utility Clerk at Liberty National Bank

Working at Liberty National Bank as a utility clerk has many advantages. One of which is learning the interworkings of a big business while you are studying it in school. It's a lot easier to understand a certain problem in class when you're in every day contact with it at work. And, as a utility clerk, you learn every job in the bank. It seems to be a stepping stone to the position of operations officer.

Cooperative Education Supervisor's and Employer's Comment: "This student was upgraded to an operations officer trainee at Bank of America. He is on his way to a promising career in banking."

Student: John, Human Resources Department, Evening College student

In conclusion to this term paper I must admit that my job performance has improved through enrollment in cooperative education. One of the most important goals or aims for improvement was to correct the past ESAR printouts and other correction problems. I did say "past" as this troublesome problem has now been corrected.

Student: Mary - Secretary

I do think that cooperative education has influenced my thinking and planning of what I have to offer towards my career, and I feel it is a lot. I have realized more and more that an education is a necessity in order to accom, plish my goals and I feel that many years of schooling is a worthwhile process in order to accomplish my goals and I feel it will help me to get to the top step in my life. I shall try to proceed forward and upward.



48 -49-

Vol. 1 - No. 2

"ACHIEVEMENT BY OBJECTIVES"

Adopted as a part of the Cooperative Education program in September, 1970, "Achievement By Objectives" is a plan to allow work experience students to focus on planned learning opportunities on the job. In a plan very similar to independent study, cooperative education students must identify new learning opportunities on the job each semester related to their college work. The setting of reachable goals is proving important to students. Besides promoting a dialogue between instructors, students and employers, the plan is allowing students a sense of accomplishment for their efforts. Response from employers has been very supportive. One thing the plan has going for it is that the student has the choice of setting his own educational objectives.

BANKER'S SEMINAR

A successful seminar consisting of several local bankers took place recently in the Faculty House. The format worked beautifully. We had a dozen banks represented to include Bank of America, Security First National, U. S. National, UCB and officers from as far away as Los Angeles. As a part of the seminar, interested students from the business and accounting studies were on hand to quiz and partake in the discussions.

Vaughn Redding (District Work Experience Director), Jim Garmon and Clyde Reyes added the dimensions needed to create a very spontaneous atmosphere. The very important outcome was the positive attitude of all banks concerned to participate or eventually participate by providing Work Experience Stations for OCC students.

LION COUNTRY SAFARI

Get this! Through constant harassment of the Lion Country Safari Administration, the small staff of Jim Garmon's have opened the doors once again at this great amusement center. At this time OCC has just placed a Gounds and Publicity Photographer and is screening students who might qualify as official host and hostess to conduct V.I.P. tours. G-R-R-EAT!!

MID-MANAGEMENT IN RETAILING

Largely through the efforts of Gene Overholt, many of the larger department stores have opened positions in mid-management for career criented students in the OCC business department. Gene has also proposed that OCC seek spots in display advertising since this particular class is beginning to swell with many new talented students. Shortly, Gene and the Work Experience Staff will call upon Penny's to present just such an idea. More on this later.

INSTRUCTORS HOLD SPRING WORKSHOPS

Instructors who coordinate work experience students are beginning their semester activities with workshop meetings with students. In groups or with individual students, these meetings are held early in the semester to get acquainted and plan the semester's activities. Much of the workshop emphasis is on how to set objectives. Also discussed at these meetings are topics to assist students in job application and interviewing and developing a resume.

WORK EXPERIENCE FILM

If you should see a film crew on campus shortly it is because OCC and GWC are participating in a joint venture to develop a Work Experience Story. The crew is filming actual students who are involved in the program and presenting the correlation between their related studies and work experience. This will add a vivid new vehicle to the campaign of dissemination and exposure.

It will have many uses to include presentation to college coordinators, high school students and private business and industry. On the same order a color slide presentation is being prepared for short, explicit presentations.

LARGE COMPANIES PARTICIPATE

North American Rockwell Autonetics has a distinguished space effort record. At McDonnell-Douglas, the activity revolves around the manned space lab. McDonnell-Douglas and North American are also involved in a cooperative work experience education program with the Coast Community College District. Walt Young at McDonnell-Douglas, Huntington Beach, and Al Cherman at Autonetics, direct work experience educational programs internally for these two companies. Employees of these firms who are enrolled in college work experience programs must identify and describe learning opportunities they will pursue on the job. College and company coordinators then review these educational objectives and approve each student's plan. Later. these objectives are evaluated by the student and coordinators to determine the level of accomplishement.

