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ABSTRACT

This report of the first-year operations of project PEAL (Relevant Experiences for Alternative Learning), an experience based career education (EBCE) project based on the EBCE model developed by Northwest Regional Educational Laboratories, is presented in four parts. (The three broad characteristics of Project REAL follow: student-centered and provided personalized learning experiences to participating students; focus of student learning activities was in the community; and instructional experiences of an academic nature were integrated with career development experiences.) Section 1 includes an introduction to the project goals and explains the scope of the evaluation. Section 2, pertaining to student outcomes, covers information on the students' performance level in the basic skill areas, their job knowledge, their knowledge of career decision-making, and their ability to complete seven "survival skills" competencies. Section 3, pertaining to student process objectives, reports information on student placement in community exploratory and project learning activities, high school credits earned, student assessment, and implementation of sex-fair guidance, placement, counseling and follow-up services. Section 4 discusses implementation of the project management plan, parental approval, insurance protection, staff development, employment of needed personnel, and establishment of an advisory board. (BM)

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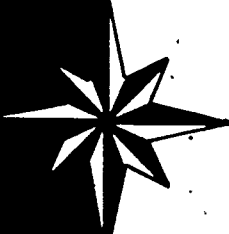
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Year 1

Third-Party Annual Evaluation Report
Relevant Experiences for Alternative Learning
Project

Newark School District

Newark, Delaware



Project Grant No. J 03-76-00229 (502)

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September 31, 1977

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Educational Testing Service
Princeton, New Jersey
First Year Third-Party Annual Evaluation Report
Newark School District
Newark, Delaware
Project Grant No. J-03-76-00229 (502)
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SECTION I. INTRODUCTION

The Newark (Del) School District has been awarded a three-year contract from the U.S. Office of Education to implement an experience based career education project (EBCE) subsequently referred to as Project REAL. As part of the terms and conditions of the contract, Educational Testing Service (ETS) has been selected to provide third-party evaluation activities for the project's first year of operation -- October 1, 1976 to September 31, 1977. ETS's specifications for third-party evaluation services were included as part of Newark's original proposal to the Office of Education. ETS received and signed a formal letter of agreement (contract) to provide these services on November 30, 1976.

Project REAL

Experience based career education was conceptualized and initiated by the Office of Education. Following preliminary studies, four regional laboratories were selected by the National Institute of Education to develop the EBCE concept into an alternative educational program for high school students. The Newark School District selected Northwest Regional Educational Laboratories EBCE project for

implementation. The project has essentially three broad characteristics:

1. The project is student-centered and provides personalized learning experiences to participating students.
2. The focus of student learning activities is in the community.
3. Instructional experiences of an academic nature are integrated with career development experiences.¹

The content of Project REAL's learning activities is individualized on the basis of each student's unique cognitive styles, personal goals and educational needs. Staff are guided in their negotiation of individual student learning plans by the following curriculum components:

- Life Skills (creative development, critical thinking, personal/social development, science, functional citizenship, competencies)
- Basic Skills (reading, mathematics, computation)
- Career Development (identifying career interests, understanding the world of work, employability skills, career knowledge)²

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1. National Institute of Education, Education and Work Program U.S. Department of Health, Education and Welfare, A Comparison of Four Experience-Based Career Education Programs, 1976.
 2. Newark, Delaware, A Proposal for the Implementation of Northwest Regional Educational Laboratories EBCE Model, 1976.

The goals of Project REAL as contained in the proposal to the U.S. Office of Education include:

Goal A: Providing the overall management and support staff for the program

A1: Establishing an advisory board to function in the areas of program planning, governance and community relations

A2: Developing a management plan for each years operation

Goal B: Developing the necessary instructional and curriculum materials for approximately 60 students for the first year of operation

B1: Establishing a network of community sites in which student learning activities will take place

B2: Implementing EBCE curriculum materials in three high schools that relates community learning activities with the three program context areas: Life Skills, Basic Skills and Career Development.

Goal C: Evaluating student process and student outcome data

C1: Developing and implementing an evaluation design that provides for student outcome evaluation, process evaluation, summative evaluation and side effects evaluation

Goal D: Developing alternative strategies for demonstrating and disseminating Project REAL materials through Delaware.

D1: Providing consultant services and appropriate materials to districts interested in implementing Project REAL

D2: Providing dissemination of Project REAL information through graduate career and vocational education courses offered at the University of Delaware.¹

1. Newark, Delaware, A Proposal for the Implementation of North West Regional Education Laboratories EBCE Model, 1976.

During Project REAL's first year of implementation 34 students were involved in the program in Christiana, Glasgow and Newark High Schools. The first half of the school calendar year was devoted to preparing the necessary instructional and curriculum materials, recruiting students, establishing learning centers, and employing staff. Student involvement in the program was initiated in January, 1977.

Background of the District

Newark, Delaware is located midway between the nation's capitol and New York City. The city is experiencing a massive growth in industry and housing. It has progressed from a small farming community to one presently characterized by pollution, congestion, and the demand for expanded services typical of cities in the northeast megalopolis. The Newark School District's student enrollment has doubled every five years since World War II and is currently estimated at 17,000 students. The district encompasses about 15 percent of the state of Delaware's total population. The Newark District is heterogenous in its occupational and sociocultural makeup with middle-income families predominating. A high proportion of the district's workers are employed in two broad areas; production and scientific-technical.

Scope of Evaluation

The evaluation plan for Project REAL's first year of implementation includes evaluation questions that are intended to determine the extent to which:

- Project REAL has been implemented in accordance with its proposal.
- Student process objectives and product outcomes have been attained.
- Assurances specified by the United States Office of Education have been achieved.

The evaluation plan was prepared in three parts. Part A of the plan lists evaluative questions related to student outcomes; Part B contains questions about student process objectives; and Part C specifies questions linked to project management tasks. Specifically the format of the plan is as follows:

- Evaluation Questions: A description of the topic or area evaluated in three broad areas:
 - Part A - Student Outcome Evaluation Questions
 - Part B - Student Process Evaluation Questions
 - Part C - Management Process Evaluation Questions
- Data Source: Lists data sources that will be used to provide information about each evaluation question.
- Time Data Collected: Data collection time frame by Fall, Winter or Spring.
- Evaluation Design: Specific type of design to be used.
 - Formative
 - Summative
 - Pretest/Posttest; Posttest Only
- Analysis: Describes the type of analysis to be used, such as noun group comparison, analysis of variance or covariance and so on.
- Target Criteria: A description of the criteria or standards to be used to assess whether or not the evaluation question has been answered in the desired direction.
- Sample: The sample (or population) or subjects or documents to be analyzed.

The subsequent sections of the Final Report present discussion and tabulation of the results of Project REAL's first annual evaluation. The sections are presented consistent with the major parts of the evaluation design.

SECTION II. PROJECT REAL STUDENT OUTCOME EVALUATION QUESTIONS

Have Project REAL Students Maintained Their Performance Level in the Basic Skill Areas?

The basic premise of Project REAL is that project students will perform in the basic skill areas as well as students enrolled in traditional high school programs. Analysis of the data collected indicates that although student performance fluctuated in some basic skill area, their overall performance was maintained.

The California Test of Basic Skills (CTBS) was administered to all project students using a pretest-posttest design. Assessment of student achievement was determined using the CTBS norming sample as the comparison group. Mean scores, percentiles and normalized curve equivalents were computed for each of the basic skill areas measured and are displayed in tables 1 through 6. The tables are broken-out by eleventh and twelfth grade students, however, the data were pooled across the three high schools participating in the project because of the small number of students involved.

As shown in the following sets of tables, student achievement declined the most in reading and social studies with the greatest apparent increase in mathematics.

Table 1

Results of CTBS Analysis - Reading

	<u>11th Grade</u>		<u>12th Grade</u>	
	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>
Mean	62.99	59.97	69.36	68.28
Standard Deviation	12.33	10.48	14.7	16.3
Percentile	63	53	66	61
Normalized Curve Equivalent	59	51.6	58.7	55.9
Normalized Curve Equivalent Gain		-5.4		-2.8
N		17		17

Table 2

Results of CTBS Analysis - Language

	<u>11th Grade</u>		<u>12th Grade</u>	
	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>
Mean	61.94	62.46	68.83	69.25
Standard Deviation	10.28	8.99	14.41	12.76
Percentile	56	56	68	69
Normalized Curve Equivalent	53.2	53.2	59.9	60.4
Normalized Curve Equivalent Gain				+0.5
N		17		17

Table 3

Results of CTBS Analysis - Mathematics

	<u>11th Grade</u>		<u>12th Grade</u>	
	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>
Mean	67.58	72.36	71.71	76.19
Standard Deviation	21.57	18.72	16.23	16.29
Percentile	54	57	49	54
Normalized Curve Equivalent	52.1	53.7	49.5	52.1
Normalized Curve Equivalent Gain		+1.6		+2.6
N		17		17

Table 4

Results of CTBS Analysis - Reference Skills

	<u>11th Grade</u>		<u>12th Grade</u>	
	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>
Mean	15.25	14.48	16.06	15.58
Standard Deviation	4.38	4.76	4.72	4.14
Percentile	59	56	59	57
Normalized Curve Equivalent	54.8	53.2	54.8	53.7
Normalized Curve Equivalent Gain		-1.6		-1.1
N		17		17

Table 5

Results of CTBS Analysis - Science

	<u>11th Grade</u>		<u>12th Grade</u>	
	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>
Mean	26.66	27.56	27.83	26.77
Standard Deviation	6.03	7.32	4.43	6.35
Percentile	67	71	66	60
Normalized Curve Equivalent	59.3	61.7	58.7	55.3
Normalized Curve Equivalent Gain		+2.4		-3.4
N		17		17

Table 6

Results of CTBS Analysis - Social Studies

	<u>11th Grade</u>		<u>12th Grade</u>	
	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>
Mean	38.8	28.9	30	28.01
Standard Deviation	5.5	6.59	8.73	6.45
Percentile	68	66	63	55
Normalized Curve Equivalent	59.9	58.7	57	52.6
Normalized Curve Equivalent Gain		-1.2		-4.4
N		17		17

A commonly accepted criteria for estimating meaningful NCE gains is a gain (either positive or negative) of 7 points or more. In no instance did Project REAL students increase or decrease 7 or more points in any of the basic skill areas.

Have Project REAL Students Increased Their Job Knowledge?

Project REAL students' knowledge of jobs as measured by the Assessment of Career Development (ACD) test did not increase significantly. A pretest-posttest design utilizing a comparison group of students from Newark High School (N=66) was employed. Although Project REAL students' job knowledge tended to increase, comparable increases were obtained for the comparison group. One plausible explanation may be that the content coverage on the ACD was not comparable to individual student job explorations conducted as part of Project REAL. Another explanation may be that job knowledge is influenced as a consequence of student maturation.

Mean scores, standard deviations and N's for Project REAL and comparison students for the eleventh and twelfth grades on the ACD Job Knowledge test is found in Table 7.

Table 7

Results of Assessment of Career Development Test - Job Knowledge

	<u>11th Grade</u>	<u>12th Grade</u>	<u>Unweighted Means</u>	<u>Gain</u>
<u>Project REAL - Pre</u>				
Mean	55.53	54.77	55.13	
Standard Deviation	6.54	6.81		
N	17	13		0.83
<u>Project REAL - Post</u>				
Mean	57.53	54.38	55.96	
Standard Deviation	6.45	6.72		
N	17	13		
<u>Comparison - Pre</u>				
Mean	57.40	57.14	57.27	
Standard Deviation	4.55	6.07		
N	30	36		1.73
<u>Comparison - Post</u>				
Mean	59.70	58.50	59.00	
Standard Deviation	5.35	6.29		
N	30	37		
<u>Unweighted Means - Pre</u>				
	56.47	55.95	56.21	
<u>Unweighted Means - Post</u>				
	58.62	56.44	57.53	

Table 8 displays an unweighted means analysis of variance for posttest scores adjusted for pretest scores. The data indicate a lack of statistically significant difference between Project REAL students and the comparison group. Also, there was no significant interaction between Project REAL students and the comparison group and grade level. There was however, a statistically significant difference between grades eleven and twelve.

Table 8

Unweighted Means Analysis of Variance for Job Knowledge Posttest Adjusted for Covariates

<u>Source</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F-Test</u>	<u>Significance</u>
Project REAL/Comparison Grade: 11/12	41.72 63.23	1 1	41.72 63.23	2.639 4.000*	p = 0.108 p = 0.049
Project REAL/Comparison X Grade: 11/12	12.15	1	12.15	0.769	p = 0.383
Covariates	1986.07	1	1986.07	25.634***	0.001
Unit	1438.56	91	15.81		

Although there were differences on mean pretest scores between Project REAL students and the comparison group, when these differences were accounted for there was no significant difference on mean posttest scores.

Have Project REAL Students Increased Their Knowledge of Career Decision Making?

Project REAL students knowledge of career decision making as measured by the ACD test did not increase significantly. Comparison of pretest-posttest mean scores for Project REAL students yielded no significant difference. Analysis of pretest-posttest mean scores between Project REAL students and the comparison group also revealed no statistically significant difference. Mean scores, standard deviations and Ns for Project REAL students and comparison students for the eleventh and twelfth grades on the ACD Career Decision Making Knowledge test is shown in Table 9.

Table 9

Results of Assessment of Career-Development Test -
Career Decision Making Knowledge

	<u>11th Grade</u>	<u>12th Grade</u>	<u>Unweighted Means</u>
<u>Project REAL - Pre</u>			
Mean	29.56	28.00	28.79
Standard Deviation	4.61	5.29	
N	17	13	
<u>Project REAL - Post</u>			
Mean	28.82	27.15	28.09
Standard Deviation	4.92	4.43	
N	17	13	
<u>Comparison - Pre</u>			
Mean	26.77	26.22	26.49
Standard Deviation	3.01	5.40	
N	30	36	
<u>Comparison - Post</u>			
Mean	26.80	27.47	27.14
Standard Deviation	4.45	3.44	
N	30	36	
Unweighted Means - <u>Pre</u>	28.18	27.11	27.64
<u>Post</u>	27.81	28.31	28.06

Table 10 shows an unweighted means analysis of variance for posttest scores adjusted for pretest scores. The data indicate no statistically significant difference between Project REAL students and the comparison group nor between grades. Also, there was no significant interaction between Project REAL students and the comparison group and grade level.

Table 10

Unweighted Means Analysis of Variance for
ACD Career Decision Making Knowledge Adjusted
for Covariates

<u>Source</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F-test</u>	<u>Significance</u>
Project REAL/Comparison	15.45	1	15.45	1.11	p = 0.296
Grade: 11/12	17.94	1	17.94	1.29	p = 0.260
Project REAL/Comparison X Grade 11/12	0.04	1	0.04	0.003	p > 0.500
Covariates	339.43	1	339.43	24.312***	p < 0.001
Unit	1270.51	91	13.96		

When differences between mean pretest scores for Project REAL students and the comparison group were accounted for, there was no significant difference on mean posttest scores.

Have Project REAL students demonstrated successful completion of at least seven competencies?

Project REAL requires students to complete at least seven competencies designed to equip students with "survival skills" needed for adult living. Successful attainment of each competency is intended to be certified by a community representative. The required competencies include:

1. transacting business on a credit basis.
2. completing federal and state tax returns.
3. budgeting time and money effectively.
4. operating and maintaining an automobile.
5. explaining one's legal rights and responsibilities.
6. making appropriate use of public agencies.
7. providing adequate insurance for oneself, family and possessions.

Project REAL staff have prepared materials describing the content of each competency, suggested student learning activities, and guidelines for determining competency attainment. Additional revisions to these materials were made by staff in inservice workshops during the summer of 1977.

Examination of the number of competencies completed by students in each of the three high schools participating in the project indicated that the target criteria of seven competencies per student was not achieved. Newark High school students completed six competencies and students in Glasgow and Christiana High Schools completed five competencies apiece. Moreover, interviews with Project REAL staff indicated that competencies were not typically certified by community representatives as originally planned. Instead, competencies were certified by regular classroom teachers and in some cases project staff.

Project staff reported that insufficient time was available for all students to complete at least seven competencies. Project staff also indicated that they were reluctant to use community representatives as certifiers since many of them were already participating in the project as cooperating employers. Nonetheless, the use of school personnel in lieu of community representatives is a significant shift in project plans. The philosophy of the EBCE program, which Project REAL embraces, is rooted in the use of community representatives to provide "real life" learning experiences. The transferring of the role of these representatives to school personnel diminishes the emphasis on community involvement. However, plans for Project REAL's second year of implementation require that at least some competencies will be taught and certified by community representatives.

Conclusions

The findings of the previous section support attainment of one of the four student outcome objectives. Project REAL students overall maintained their standing compared to the national norming sample in the basic skill areas. Although there are some increases and decreases in the basic skill areas, involvement in Project REAL appears not to have had a significant influence on student achievement in these areas. In the areas of job knowledge and career planning knowledge, Project REAL students performance tended to improve a small amount between pretest and posttest administration, however, a comparable increase was also demonstrated by the comparison group. Thus, one cannot attribute Project REAL student performance to project activities themselves.

Project REAL did not attain the target criteria of at least seven competencies completed by each student. Newark High School students completed six competencies each while students in Glasgow and Christiana completed five competencies. Also, regular classroom teachers in each of the three high schools were used in some cases as competency certifiers in lieu of community representatives.

Several issues, however, preclude drawing unequivocal conclusions about the absence of project effect. First, the low level of validity and reliability of instruments in the field of career education works against precise measurement of career education attributes. Secondly, because of the time required to gear-up for the project, restriction of the pretest-posttest period to less than six months may not have given sufficient time for the project to produce measureable effects. And last, the relatively high mean pretest scores may have had a ceiling effect on mean posttest scores and therefore restricted achievement as measured by the ACD instrument.

Recommendations

The findings suggest that the ACD instrument may not be the most appropriate instrument for use in measuring the growth of career education attributes.

Therefore, it is recommended that an investigation be undertaken to identify an alternate instrument. It is also recommended that strategies be developed and employed to secure community representatives as competency certifiers for school year 1977-78.

SECTION III. PROJECT REAL STUDENT PROCESS EVALUATION QUESTIONS

Have Project REAL Students Been Placed in Community Exploratory and Project Learning Activities?

Project REAL program specifications require that students complete at least three exploratory experiences and five projects. Career exploratory experiences are three-to-five days in length during which time students interact with adult members of the work force in occupations of interest to students. Projects are longer in length, typically spanning three to five weeks, and provide the opportunity for students to study occupations of interest to them in depth. Projects are individualized and incorporate academic as well as occupationally related areas. Both exploratory and project experiences are characterized by direct student contact with the tools, materials and other resources available in community worksites.

The data collected from Christiana, Glasgow and Newark High Schools indicated that students achieved the target criteria set for the completion of exploratory and project experiences. Table 11 displays the number of students attaining the target criteria.

Table 11

Number of Students Attaining Criteria for Completion of Exploratory and Project Activities

<u>Project Sites</u>	<u>Exploratory Experiences</u>	<u>Project Experiences</u>
Christiana HS	10	10
Glasgow HS	5	5
Newark HS	19	19
Totals	34	34

Project REAL students had community experiences in a broad array of jobs or job clusters. Table 12 presents the number of students completing career explorations and projects in each of the following job clusters:

Table 12

Distribution of Project REAL Students in Job Clusters

<u>Job Cluster</u>	<u>N Students</u>
1. Agri-Business and Natural Resources	4
2. Business and Office	18
3. Communications and Media	10
4. Construction	5
5. Consumer and Homemaking Education	4
6. Environment	3
7. Fine Arts and Humanities	5
8. Health	16
9. Hospitality and Recreation	5
10. Manufacturing	3
11. Marine Science	1
12. Marketing and Distribution	6
13. Personal Services	18
14. Public Services	19
15. Transportation ¹	4

The data in Table 12 indicates that Project REAL students were placed in jobs that were distributed across the U.S. Office of Education's fifteen job clusters.

1. U.S. Office of Education Fifteen Job Clusters

Learning Site Analysis Forms (LSAF's) have been prepared by Project REAL staff for each community work site. LSAF's include a description of the materials, tools, equipment and job tasks students may encounter at each site. LSAF's are used to develop specific site learning objectives that in turn are used in developing student projects.

Review of a representative sample of LSAF's (N=20) indicate that these forms have been completed satisfactorily. Specific job tasks have been delineated; tools, materials and other resources available at the work site identified; and an overall description of the job are included in the LSAF's. In many instances however, LSAF's were completed without face-to-face contact with job representatives. Project staff reported the LSAF's demanded an unreasonable amount of time to complete and that telephone interviews with community representatives were used in lieu of direct contact. Nonetheless, the lack of direct contact with community representatives may influence the degree to which LSAF's reflect job site activities.

In addition to LSAF's, Project REAL has also prepared an Employer's Agreement Form that describes the terms and conditions under which the employer agrees to participate in providing job experiences for students.

Have Project REAL Students Been Awarded Credit toward a High School Diploma for Successful Completion of Program Activities?

The Delaware State Board of education and the Newark School District have established guidelines regarding the award of credit toward a high school diploma for students pursuing alternative secondary educational programs. The State Board of Education and the Newark School District require a minimum of 18 approved credits to be awarded a high school diploma.

State and district policy provides for: "...the granting of the maximum of three credits toward graduation for a combination of approved and individualized programs which include: independent study projects arranged with appropriate school administrators and staff persons and approved and supervised work experiences in the school and community which meet the educational objectives or special career interests of an individual student."¹

Nonetheless, all project REAL credits can be applied to the 18 minimum required for graduation, additional credits for Project REAL projects were awarded beyond the 18 credit minimum to insure that each student received appropriate academic credit consistent with the time spent in Project REAL. One-half credit was awarded for each project completed with additional credit awarded for successful completion of career competencies and explorations.

Project REAL staff developed and distributed to students and their parent's guidelines for the award of credit for participation in the project. ETS staff reviewed these guidelines and supportive forms and other documents and monitored their use. Although each of the three project sites have particularized guidelines for awarding credit, there was a high degree of consistency among the sites in applying the guidelines.

Interviews with students in each of the project sites indicated that they felt the guidelines and procedures for awarding credit were reasonable and equitable. Although project staff reported that the guidelines were appropriate, they did say that the process of interpreting projects in terms of the academic area the credit should be granted was a difficult and time consuming task. During the summer of 1977 project staff reviewed the guidelines and made revision where necessary.

1. Newark, Delaware, A Proposal for the Implementation of Northwest Regional Educational Laboratories EBCE Model, 1976.

Has Project REAL Implemented Sex-Fair Guidance, Placement, Counseling The Follow-up Services?

Project REAL has prepared a comprehensive plan for dealing with sex bias and sex discrimination issues that relate to the project. The plan includes:

- Staff development activities to familiarize staff with sex bias and sex discrimination issues in career education.
- Strategies and procedures for dealing with these issues on a student level.
- Student process objectives in guidance and counseling.
- Guidelines for the selection of non-textbook materials.
- Guidelines for dealing with controversial instructional materials.
- Checklist for evaluating materials for racial and sex discrimination.

The comprehensive plan for treating sex bias and sex discrimination issues was developed late in the Spring of 1977 and is scheduled for implementation in the school calendar year 1977-78. During the project's first six months of operation specific instruction in the area of sex bias and sex discrimination was provided to students by Project REAL staff on an ad hoc basis.

Project REAL has also developed and implemented a student placement and follow-up system to account for the educational job placement of each student who graduates or leaves the project. Table 13 summarizes student placement and follow-up data across the three project sites.

Table 13

Project REAL Follow-up Information

	Grade 11	Grade 12
Total Number Enrolled in Project REAL	27	25
Graduated -- Enrolled in College	--	10
Graduated -- Placed in Job	--	8
Graduated -- Not placed in Job or College	--	4
Completed program and promoted	11	--
Dropped out of Project REAL and Returned to regular classroom	13	3
Dropped out of school	--	--
Transferred out of District	2	--
Re-enrolled in Project REAL for second-year	1	--

Has Project REAL Implemented a Student Assessment Program?

Project REAL has implemented a student assessment program in the basic skill areas and career development. The California Test of Basic Skills (CTBS) and the Assessment of Career Development (ACD) instrument were administered to all incoming project students. The test results were used by project staff in developing individualized learning plans (i.e. projects) for students.

The subtests covered by the CTBS include:

1. Reading
2. Language
3. Mathematics
4. Reference Skills
5. Science
6. Social Studies

Interpretation of test scores for instructional use is based on comparison with the CTBS norming sample. In those instances when students score below the 50 percentile in a particular basic skill area, individual learning plans are prepared to offer students special instruction in this area.

In addition to the use of the CTBS on a pre-entry assessment basis, the results of the CTBS pretest-posttest analysis were also used by Project REAL staff to identify specific parts of the test that students tended to do poorly. An item analysis of the CTBS has been done by Project staff to identify content areas of the test where student achievement was less than anticipated. The results of the item analysis was then used to develop individual learning modules (e.g. computational skills, reading). Plans call for incorporating these modules into student projects during the Project's second year of operation when the results of students pre-assessment indicates low achievement in a specific basic skill area.

The results of the ACD preassessment was used by Project REAL staff primarily as a device to identify students' interests. ACD results and interviews with students conducted by Project staff were used to select career exploratory experience that were of most interest to students. The ACD posttest results were used by staff in a similar counseling manner with students to discuss how interests in careers or occupations may have shifted as the result of participation in Project REAL.

Conclusions:

The findings of this section suggest that Project REAL's student processes (i.e. activities) have been implemented as planned. The data collected indicate that project students have completed the required number of exploratory experiences and project experiences. Also, an analysis of the career

explorations and projects indicates that Project REAL students were exposed to a broad array of jobs or job clusters. Learning Site Analysis Forms (LSAF's) have been prepared by Project REAL staff for each community work site. However, in many cases, LSAF's were completed without direct contact with job representatives. This arrangement may have an unknown effect on the extent to which LSAF's reflect job site activities.

Project REAL students have been awarded credit toward a high school diploma in each of the three project high schools in a manner consistent with published guidelines and policies. A comprehensive student assessment program has been implemented and is utilized by project staff in the preparation of individualized student learning experiences. An area in which Project REAL has not proceeded in a way consistent with its stated plans is reviewing project related materials for possible sex-bias. Although, student process objectives have been developed in this area and materials have been selected to review project materials, a systematic set of procedures have not been developed or implemented in this area of concern.

Recommendations

The following recommendations are based on the findings that indicate that improvement is needed in the preparation of LSAF's and in reviewing materials for sex-fairness:

1. LSAF should be developed and prepared incorporating direct contact with employer representatives.
2. A set of procedures should be developed and implemented for systematically reviewing all project related materials for sex-fairness.

SECTION IV. PROJECT REAL MANAGEMENT PROCESS QUESTIONS

Has an Overall Project Management Plan Been Developed and Implemented?

The director of Project REAL has prepared and implemented a management plan that includes the following elements:

- Goal Statements: A description of the broad goals of Project REAL.
- Objectives: A description of the objectives related to each of the broad goal statements.
- Activities: A description of the activities designed to accomplish the stated goals and objectives.
- Completion Dates: The planned completion dates for accomplishing each of the stated goals and objectives.
- Resource Allocation: A description of the human and financial resources allocated to each of the goal and objective areas.
- Person(s) Responsible: The name(s) of the person(s) responsible for undertaking project activities.

Analysis and review of the management plan indicates that project goals and objectives have been linked to proposed project activities, start and completion dates have been established for each of these activities, and financial and human resources have been referenced to each of the project activities.

Has Parental Approval for Participation in Project REAL and the Third-Party Evaluation Been Collected for Each Student in the Project?

Parents of students expressing an interest in participating in Project REAL were informed concerning the requirement for prior parental approval for students by mail and during an orientation session. A checklist procedure was

developed and implemented by the project's staff to insure that parental approval was secured prior to student participation.

Student folders were prepared that contained the following forms: parental permission, insurance, accident, and transportation. An ETS representative examined each student's folder early in the Fall of 1976 and found that a signed parental permission form and other necessary forms were present for all Project REAL students. Further examination of the dates of the parental form revealed that permission had been granted by parents prior to student involvement in the project.

Have Provisions Been Implemented to Guarantee the Safety and General Well Being of Project REAL Students?

Insurance protection for Project REAL students was provided through student participation in the Newark School District's insurance plan or through individual family coverage. Students utilizing private vehicles for transportation to and from school and community work sites were also required to demonstrate adequate insurance protection of himself/herself, the vehicle and passengers. Students transported on District owned and operated vehicles were covered through the District's insurance plan. Also, liability insurance protection for employers involved in Project REAL was provided by the District. Examination of student folders indicated that all of the students were enrolled in either the District's or their family's insurance program.

Project REAL on-site employer work activities were of the non-paid variety and were designed to be in compliance with the child labor provision of the Fair Standards Act. Also, a copy of Project REAL's proposal was submitted to the Area Director of the Department of Labor to inform the Director of Newark's intentions in implementing Project REAL.

What Was the Nature of Project REAL Staff Development Activities?

A variety of staff development activities were organized by Project REAL's director. These include such activities as:

1. The Newark School District's subject area supervisors (N=10) attended a half-day orientation session about Project REAL in September of 1977. The session was conducted by Project REAL's director and covered topics such as the philosophy, goals and objectives of Project REAL, the relationship between Project REAL and other district curriculum offerings and unique and special arrangements that were necessary to implement the project in the district.
2. Project REAL's staff (N=6) attended a one week training session conducted by Mr. H. Ferhenbacher, a representative of North West Regional Educational Laboratory. The training session covered a variety of subjects including recruitment of students, use of project forms and other materials, student assessment, identification and selection of employer work sites and numerous others administrative and instructional aspects of the project.
3. ETS staff conducted a one day workshop for Project REAL staff early in the Fall of 1976 that dealt with the role of the third-party evaluator and student assessment. ETS's evaluation design was presented and discussed with the staff, as well as the staff's role in administering the pre and posttests and other data collection activities.

4. During the period of September to December 1976 the staff of Project REAL developed specific project materials and recruited students and employer sites necessary for implementing the program in January of 1977.
5. Project REAL staff attended bi-monthly staff meetings from January to June 1977. These meetings were held primarily to resolve daily operational problems effecting the implementation of Project REAL.
6. During the Summer of 1977 Project REAL's staff revised the following materials: basic skills competencies, operational manuals and guidelines, and a wide-variety of miscellaneous project forms.

Each of Project REAL's staff worked approximately seventy hours during the summer months on project related activities. While project staff were involved in revising materials the project's director prepared a comprehensive staff development plan, including statements of objectives and activities, for implementation in the project's second year of operation.

Has the Necessary Project Staff Been Employed in Keeping with the Project's Proposal?

The following personnel have been employed and are present at each of the three Project REAL sites: one learning manager, one community coordinator and one clerical assistant. A full-time project director has also been employed and is located in Newark School District's central office. Each of the staff has been provided with a job description listing the appropriate tasks, roles and responsibilities. A personnel review procedure has been implemented to ensure periodic evaluation of all Project REAL personnel.

Has a Project REAL Advisory Board Been Established?

The Newark School District has maintained for the past four years an external career education advisory council that was established as part of the district's involvement in the Career Educational Instructional Systems Project. The council meets monthly and its membership includes representatives of business, industry, state and local governments, state education agencies, and a variety of professions as well. The purpose of the council is to advise the superintendent on broad areas of concern in the field of career education and to establish a basis for community support. Because the council continues to meet on a regular basis a decision was made in early September, 1976 to form a subcommittee or task force of the council as an advisory board to Project REAL.

The Project REAL Advisory Board meets every other month and assists the project director in program planning, establishing community relations and shaping Project REAL policies. Agendas are published 5 days prior to board meetings and minutes are prepared and distributed following each meeting. Minutes of each board meeting are included in Project REAL quarterly reports.

To What Extent Was Project REAL Implemented as Planned?

Learning Centers: Learning centers have been established as planned in each of the three Project REAL sites. These centers are located in classrooms and have sufficient desks, file cabinets, audio-visual, duplicating equipment and other materials and supplies to function as a self-contained unit. A single Classroom in Christiana and Glasgow High Schools has been designated as a Project REAL learning center. However, due to increased enrollment in Project REAL in Newark High School next year (i.e. 1977-78) three classrooms have been set aside for Project REAL's use.

Transportation: Transportation of Project REAL students to and from worksites appears to have not been a significant problem. Unlike other experience-based career education projects, Project REAL requires that students make arrangements for their own transportation. However, although staff and students did not report this as a problem, it may be a self-limiting mechanism that prevents expansion of Project REAL in those instances where public or private transportation may not be available to some students wishing to enroll in the project.

Community Work Sites: The staff of Project REAL have identified in excess of 90 community work sites. The work experiences found in these sites represent a broad array of jobs and job clusters spanning the 15 job clusters classified by USOE.¹ ETS interviewed a representative sample of five employers who participated in the project during the Spring of 1977. The employers interviewed uniformly had positive reactions to Project REAL, expressed an interest in continuing their involvement in the project and thought that Project REAL provided students with first hand experience of demands in an employment setting.

Project REAL Site Characteristics

ETS administered the Implementation Site Essential Characteristics Checklist prepared by NWREL's experience-based career education staff to assess Project REAL's site characteristics. The findings of the Checklist indicate that Project REAL:

- provided individualized instruction to students
- utilized community resources as a basis for instruction
- built on career related activities of adult members of the work force.
- represented a comprehensive and integrated educational program
- focused primarily on the career development of students

1. Refer to page 19 for a list of student work experiences in each of the 15 job clusters.

Comparison between these broad findings and Project REAL's first year proposal and its management plan indicate that Project REAL exhibits the essential characteristics of an experience-based career education project. The completed Implementation Site Essential Characteristics Checklist is contained in Appendix A.

Conclusions:

Examination of the management process evaluation findings indicate that Project REAL has been implemented as planned during its first year of operation. In brief, an overall project management plan has been prepared and implemented, parental permission has been secured for students participating in the project and provisions have been made to provide for the general safety and well being of students. Project staff have been employed consistent with the project's original proposal and a variety of inservice staff development activities have been undertaken this past year. An Advisory Board has been established and functions as a sub-committee of Newark School District's Career Education Advisory Council. Bimonthly board meetings have been held and agenda and minutes of these meetings have been prepared and circulated to council members.

Also, in excess of 90 community work sites have been identified, learning centers have been established at each of the three project sites, and the administration of the Implementation Site Essential Characteristics Checklist indicate that Project REAL exhibits those characteristics considered to be representative of experience-based career education programs.

Recommendations:

Project REAL's first year of implementation has occurred without significant problems and was consistent with the project's administration and operational plans and intentions.

Therefore, it is recommended that the project director follow the same procedural steps in preparing and implementing a management plan for Project REAL for its second year of operation.

Site Name Project REAL, Newark School District

APPENDIX A

Respondent Name Dr. Primo Toccafondi

Observer R.G. Wasdyke, Project Evaluator

Date May 3, 1977

Implementation Site Essential Characteristics Checklist

For each area, rate the site on a five-point scale with the anchor points on the scale indicated.

I. EBCE is an Individualized program

A. Ongoing assessment of student needs, interests and abilities in Basic Skills, Life Skills and Career Development

1 There is no ongoing assessment in two or more of these areas.

5

5 Student needs, interests and abilities are continually assessed

B. Participation in assessment

1 Students play a passive role in the assessment process

4

5 Students play an active and involved role in the assessment process

C. Individual negotiation

1 All projects are pre-assigned and not subject to negotiation

4

5 All projects allow for negotiation between student and learning manager

D. Integration

1 There is no formalized individual assessment and/or accountability.

4

5 Individual assessment and accountability are integrated with program learning strategies when learning plans are negotiated

E. Accountability standards ("a set of learning and behavioral expectations for students as members of the EBCE community")

1 There are few accountability standards.

3

5 Accountability standards give the student the necessary flexibility to meet basic program expectations.

II. EBCE is a Community-Based program

A. Community input into program planning and operation

1 No mechanism currently exists

5

5 A systematic mechanism exists for procuring and utilizing community input

District Career Education Advisory Council

B. Role of the program advisory board

- 1 There is no program advisory board
- 4
- 5 The program advisory board takes an active role in direction of the program by providing program input

C. Community members and student learning

- 1 Community members are not involved in student learning activities
- 4
- 5 Community members serve as resource instructors and certifiers of student learning

D. Provision for employer instructor training/development activities

Not done

- 1 There are no employer instructor training/development activities
- 5 There are at least four, regularly-scheduled employer instructor training/development activities

III. EBCE is an Experience-Based program and is built from the career activities of adults

A. Mode of learning

- 1 Students are instructed in a passive or school-like mode
- 4
- 5 Active, realistic lifelike learning activities are provided for all students

B. Student activity

- 1 Students are assigned activities and schedules
- 5
- 5 Students have the responsibility for budgeting their time and managing their daily activities

C. Utilization of resources

- 1 Secondary resources (textbooks, courses) are given priority
- 3
- 5 Primary resources (people; institutions, such as libraries and museums; events) are given priority

D. Community learning activities

- 1 Adult activities in the community are not utilized in student learning
- 4
- 5 Adult activities in the community serve as the primary context for student learning

E. Reference population

- 1 Adolescent peers and school work are the primary referrent
- 4 5 Adults in the world of work are the primary referrent

F. Community learning potential

- 1 No analysis is made of the learning potential of the local community
- 4 5 There is systematic analysis that enables staff and students to take full advantage of the learning potential of the local community

IV. EBCE must have its own Identity and must be Comprehensive and Integrated

A. Program requirements and processes

- 1 Regular high school requirements and processes are used to determine student learning plans
- 4 5 EBCE program requirements and processes determine student learning plans.

B. Program completion requirements

- 1 Program completion requirements are vague, unspecified or not differentiated from the regular high school requirements
- 4 5 Program completion requirements are clearly defined, differentiated from and consistent with program goals and local requirements

C. Curriculum

- 1 The curriculum structure includes experiences in either one or none of the following areas: basic skills, life skills, career development
- 4 5 The curriculum structure includes experiences in all of the above areas

D. Survival competencies

- 1 There are no performance-based survival competencies
- 3 5 There are at least ten performance-based survival competencies necessary for coping in life and modern society

E. Interrelatedness of curriculum areas and student learning

- 1 Disciplines are emphasized separately.
- 4 5 Emphasis is on interrelated curriculum areas and this is demonstrated by the student learning activities

V. The EBCE program places a major emphasis on the Career Development of students

A. Types of community learning situations

- 1 There are no employer/community learning sites
- 4 5 Provision is made for different types and levels of learning situations at employer/community sites

B. Emphasis at learning sites

- 1 Students are paid for their contributions on employer/community sites
- 5 5 Students are on employer/community sites for learning about careers, not earning money

C. Career Decision Making

- 1 Students are not encouraged to improve their career decision-making process
- 4 5 Students are required to gather information about themselves and the world of work and apply this information in career decision making

D. Reflections on student experiences

- 1 There are no requirements towards self-evaluation
- 4 5 Students are encouraged to reflect on student experiences and evaluate their own strengths and weaknesses and progress