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#### ABSTRACT

During the 1976-77 school year, fourteen experience-based career education (EBCE) pilct sites were the focus cf a second-year of operation evaluation. Each pilct site represented one of four regional education laboratories (Appalachia Evaluation Laboratory, Far West Laboratory for Educational Research and Development, North west Regional Educational Laboratory, and Research for Better Schools) and utilized one of four EBCE models developed by the laboratories. Evaluation staffs from the four laboratories sought to determine community support of the program, staff and student perceptions of EBCE learning strategies, and the students growth in career-related and interpersonal abilities. Outcomes from the evaluations included the following: (1) EBCF strategies have been proven applicable to communities ranging from rural, small-town, suburban to urban and with different student populations; (2) significant growth in career attitudes and career knowledge was detected at most sites by a variety of career development measures: (3) students, parents, and resource persons were very supportive of EBCE; and (4) community resource persons were not only willing to continue the programs but were also willing to recommend EBCE to other potential community organizations. (JH)



# EXPERIENCE-BASED CAREER EDUCATION

Evaluation Synthesis of Second Year Pilot Sites

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#### EXPERIENCE BASED CAREER EDUCATION

Evaluation Synthesis of Second Year Filot Sites

A major characteristic of educational evaluation often used to distinguish it from research is its focus on a specific project and setting. This specificity can be extremely helpful in understanding a particular phenomenon and in using such information for program improvement. It creates a problem, however, for persons who wish to obtain generalizable knowledge as a result of reviewing a number of separate evaluations. Some people feel that for evaluation to be generalizable it is important to collect such information across several years and various settings. In some cases where uniformity and control are desireable, a common design and instruments can be applied across various programs of the same or similar nature. This approach sometimes creates problems of local resistence to an externally imposed evaluation. In other cases where it is desireable to learn how similar programs are operated and evaluated in more autonomous settings, common evaluation designs and instruments get sacrificed for a more naturalistic view. This paper synthesizes locally controlled evaluations of a large-scale career education program called Experience-Based Career Education. It is a summary of a more complete synthesis report prepared by the authors.



<sup>&</sup>lt;sup>1</sup>The research described herein was conducted under contract with the National Institute of Education. The opinions expressed are those of the authors and do not necessarily reflect the position or policy of the National Institute of Education. No endorsement by the National Institute of Education should be inferred.

Experience-Based Career Education (EBCE) provides secondary students with a vital alternative educational program that integrates academic learning, career experiences and life skills development through individual direct learning experiences in the community. Begun in 1971 and sponsored by the National Institute of Education, EBCE has been developed and implemented through four regional educational laboratories—Appalachia Educational Laboratory (AEL), Far West Laboratory for Educational Research and Development (FWL), Northwest Regional Educational Laboratory (NWREL), and Research for Better Schools (RBS).

Working from a set of common guidelines, the laboratories evolved four distinct EBCE models that encompassed the essential characteristics central to all EBCE programs:

- •EBCE involves community sites as the locus for student learning experiences.
- •EBCE is student-centered, with each learner having his or her own program based on the students' career and academic needs.
- •EBCE involves both college-bound and vocationally-oriented youth and provides a direct means of preparing them for the choices and responsibilities they will encounter as young adults. EBCE programs now in operation involve gifted, exceptional (handicapped), migrant and disadvantaged youth
- 2 as well as adults.



The 1976-77 school year was particularly important for the continued growth and development of EBCE. During this year, 14 school districts in 12 states became second year pilot sites, each adopting one of the four EBCE models and using their regular, locally-generated funds for implementation. These EBCE programs worked closely with sponsoring laboratories to provide important data on the various ways EBCE can be successfully implemented in a variety of school settings without additional federal funds and with widely varying local educational resources.

Data for this report were gathered by all 14 pilot sites in their second year of operation in 1976-77. These sites became the focus for the evaluation, since they had had a year to organize the program and were considered stable by their second year. Information from the EBCE pilot sites is particularly relevant to those considering adopting an EBCE program and begins to provide comprehensive answers to questions such as these:

- •Can EBCE be implemented in widely differing settings and without extraordinary educational resources?
- •Were EBCE participants satisfied with the learning alternatives provided?
- •Are program goals such as maintaining academic skills, improving career knowledge, interpersonal skills and attitudes toward learning being achieved at the new sites?





#### Pilot Site Findings

During the 1976-77 school year, 14 EBCE pilot sites representing the four regional educational laboratories moved into their second year of implementation in 12 states--Alaska, Delaware, California, Georgia, Iowa, Oregon, Washington, Connecticut, New Jersey, Pennsylvania, New York and Utah.\* Settings for the pilot sites represented rural, suburban, and urban communities. The physical location of the programs varied from classrooms in the high school to office space in a professional building off campus.

The following represents a description of the students evaluated:

- •Of the 946 students enrolled in EBCE in the 14 pilot sites, a little over half were female. Two hundred nine students participated in AEL EBCE, 203 in FWL EBCE, 154 in NWREL EBCE and 410 in RBS EBCE.
- •Across all pilot sites, 23% of the EBCE students evaluated by the laboratories were in the 12th grade, 44% in 11th grade, 30% in 10th grade, 14% in 9th grade and less than 1% in the 8th grade.
- •The racial make-up of the EBCE students was 76% White, 18% Black, and 6% other minorities.
- •Half of the students that participated in EBCE programs in 1976-1977 have postsecondary plans to attend a 2- or 4-year school, while approximately half have plans for full-time employment one year after high school.
- •Students' occupational goals 5 years after high school varied



from technical and semi-skilled labor to mostly professional ambitions.

#### Evaluation Approach

Evaluating EBCE has been a challenging and complex task. Of central importance has been finding satisfactory measures to determine the program's impact on students. Since EBCE's objectives extend beyond students acquiring basic reading, writing and mathematics skills, instruments had to be identified or developed that assessed how well EBCE strategies affected student performance on relevant program goals such as career knowledge and awareness, skill in interpersonal communication and problem solving, and career decision making. In many instances adequate instruments to evaluate the impact of EBCE in these areas were not available, thus necessitating the adaptation of existing measures or the development of new ones.

Although evaluation staffs from the four laboratories differed on the efficacy of specific instruments and often employed different ones in their assessment of sites, they concurred on the overall need to determine the following: community support of the program; staff and student perceptions of EBCE learning strategies, including academic skill levels; and students' growth in career-related and interpersonal abilities.



Because the pilot sites were not directly receiving funds from the National Institute of Education or from the laboratories, the evaluation undertaken by the laboratories was dependent on the cooperation and approval of each pilot site. Thus, in some cases, a pilot site might decline to use a particular instrument or choose to modify the evaluation approach to meet their local needs. For this reason, no common design or set of instruments was used across all pilot sites.

The findings reported in this paper were synthesized from four evaluation reports prepared by the Laboratories. Thus, not only are there differences in evaluation designs and instruments but also in analyses and reporting formats. Such differences created a challenge for preparing an understandable synthesis.

#### Reasons for Entering EBCE

FWL, NWREL and RBS administered their own versions of background questionnaires to assess reasons for entering EBCE. The Laboratories found that students entered EBCE largely to learn about careers, prepare for the future, find out more about their own values, interests and goals, and to choose a personal learning style.

Least influential reasons were to get away from school problems, to make new friends, to receive more individual attention, and because they heard the program was easy.



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AEL utilized case studies to discover that students at AEL sites usually entered EBCE because of the freedom to choose their own learning styles, the chance to prepare for a job, or for the opportunity to select an alternative to the structured school system.

# EBCE Effects on Students

In addition to student self-report measures, changes in performance and attitude were measured in three areas: basic skills, career skills and life skills.

Basic skills. Although EBCE is not primarily a basic academic skills improvement program, it does seek to help students expand and utilize the skills they have. The four laboratories discovered through administering three subtests of the Comprehensive Tests of Basic Skills that EBCE students progress in the areas of reading comprehension, mathematics concepts, and mathematics applications at a rate at least equivalent to the progress of non-EBCE students.

Career skills. The 1976-77 evaluation resulted in evidence that EBCE students engaged in more career related activities than did non-EBCE students. Significant growth in career attitudes and career knowledge was detected at some EBCE sites by a variety of career development measures.



Designed to increase student knowledge about careers, EBCE also strives to provide its students the facility to acquire greater career maturity.

Students at two of AEL's pilot sites showed significant growth on the Career Maturity Inventory (CMI) in attitudes about careers and in their abilities to plan for the future in the world of work. Three sites showed some increase in career maturity as measured by the CMI. One EBCE site showed significant declines on self-appraisal of job-related capabilities, ability to make future plans in the world of work and on problem-solving skills related to pursuit of career goals.

At FWL sites, on an internally-developed instrument, there were highly significant differences in mean scores between EBCE and comparison students in each of several ratings of how much students had learned in their school program about career development; that is, learning about careers in jobs, about career planning, about how to do a particular job, and about job-seeking skills. They also engaged in more career-related activities than did comparison students.

Students in the EBCE and comparison groups at NWREL's four sites were asked on the Student End-of-Year Questionnaire to rate (on a 5-point scale) how helpful they considered their EBCE/school experiences to be. EBCE students at each site gave significantly



higher ratings than comparison students to learning what to look for when considering a job. At three of the four sites, EBCE students scored significantly higher in learning how to match their interests and abilities with a potential career, and how to make effective use of resources in gathering information for work and decision making. At two of the four sites, EBCE students scored significantly higher in learning what level of basic skills proficiency is required in jobs of interest to them and how to find and keep a job.

At RBS sites, the hypothesis that program students would acquire increased mastery in career knowledge was tested by comparing the pretest and posttest performances of each program group using the Occupational Information and Planning subtests of the Career Maturity Inventory (CMI) at two sites and the Assessment of Career Development subtests at the third site. Pretest/posttest comparisons indicated that program students at two of the three sites acquired increased mastery on occupational knowledge subtests, and students at two of the three sites showed increased mastery on career planning subtests. The scores of program students on the CMI Occupational Information subtests were significantly higher than comparison students at one site. No significant differences were found in career planning knowledge.



Life skills. EBCE was designed to increase student attitudes toward learning environments and toward self and others. Evidence from the four laboratories indicated general support for the hypothesis that students acquired increased positive attitudes toward learning. Favorable increases in attitude toward self and others were found at only a few sites. At the FWL sites, students showed a strong increase in positive attitudes toward their learning environment as a result of participating in EBCE.

NWREL discovered that at least 20 percent more EBCE than comparison group students at the pilot sites had experience in competency-related experiences such as: balancing a checkbook, comparing various health and life insurance plans, completing income tax forms and planning a personal or household budget.

# Participants' Attitudes Toward EBCE

One of the important considerations for new programs is whether EBCE will attract a strong enough following among students, parents and community resource persons to make the program viable. Participants at the pilot sites expressed views about the EBCE program.

## Student Attitudes

Through case study data, AEL discovered that EBCE students frequently developed more positive attitudes and more positive self-concepts.



On the EBCE Perceptions Survey administered at the end of the year, students from two FWL pilot sites rated their perceptions of how successful the 19 EBCE program activities had been for them. Students found EBCE most helpful in learning to make decisions, learning about possible careers, learning about oneself and carrying out projects. In general, all EBCE activities listed on the questionnaire received favorable responses.

At the NWREL sites, EBCE students completed a Student End-of-Year Questionnaire covering their perceptions of the program. Students felt EBCE experiences had helped them most in feeling prepared to accept adult responsibilities, learning what to look for when considering a job, learning the basic skills necessary for careers of interest, learning to get along with others, learning how to find and keep a job, learning how to match their interests and abilities with potential careers, communicating comfortably with adults, and understanding themselves. They felt EBCE had helped them least in improving math skills, understanding the democratic process, understanding the role of science in our society, and improving reading and writing skills.

The overall responses from two RBS sites indicated that students enjoyed participation in EBCE and found it interesting, learned about careers, and compared the program favorably to traditional school programs. Across all RBS sites, the most favorable responses were received to an item which compared the EBCE program to



traditional school programs with respect to providing opportunities for learning about occupations. The only item receiving an overall negative response dealt with a lack of adequate information feedback.

## Parent attitudes

Carefully considered in the EBCE pilot site evaluations were parental attitudes and comments toward EBCE. Parents of EBCE students expressed the opinion that EBCE provided greater opportunities for students to learn and motivated them to learn more than did traditional programs. They especially indicated that learning about careers and career opportunities had increased.

In general, parents were very positive about the way their sons or daughters had responded to the EBCE program. In addition, parents felt that students had improved in the areas of self-confidence, maturity, self-direction, acceptance of responsibility, and improved communication with adults.

# Community resource person (Employer) Attitudes

The success of EBCE depends heavily on the involvement and cooperation of resource persons or employers from the community. These individuals offer students widely-varying learning experiences that go beyond the traditional classroom. A total of 332 resource persons representing 10 programs responded to questionnaires asking them about their attitudes toward EBCE and their general support of the program.



when asked if they planned to continue participation in the EBCE program, resource persons at FWL indicated in the affirmative, with a mean of 3.46 (on a 1 to 4 scale). Of the resource persons at NWREL and RBS, 93 percent and 78 percent, respectively, indicated plans for continued participation in EBCE. At the same time, resource people affiliated with FWL EBCE indicated that they would recommend involvement in EBCE to other organizations and individuals, with a mean response of 3.54 (on a 1 to 4 scale). At NWREL, 95 percent, and at RBS, 84 percent of the resource people indicated that they would recommend involvement in EBCE to other organizations or individuals. Overall, the resource persons saw the EBCE program as worthwhile for students and themselves. They were supportive of most program elements and recognized that a variety of learning experiences would be valuable to any EBCE student.

## Staff Perceptions

Also viewed as an important consideration in EBCE pilot site evaluations were general perceptions of effectiveness by EBCE staff. NWREL project staff rated the effectiveness of 14 learning activities. Although the majority of the EBCE learning activities were rated highly important, staff members ranked the following activities as most important: the student project negotiations process, student orientation, the student accountability systems, negotiated projects, student journals, competencies, learning level process, and career explorations. Ranked as the three most

effective activities were: negotiated projects, learning levels, and career explorations. The learning activities judged least effective were the student retreat and group activities. According to the staff ratings of outcome attainment from these experiences, EBCE programs have been most effective in helping students understand themselves, learn how their interests and abilities fit into potential careers, improve their oral communications, and learn to communicate comfortably with adults.

Results of the RBS program staff survey were extremely favorable, with very few negative responses. Staff members felt that students in general gained from the program and learned more about careers in EBCE programs than they did in existing school programs. Very few staff members felt that students were harmed in other academic areas as a result of being out of the traditional school for part or all of their educational program. Staff rated the conceptualization of EBCE and the implementation of the various program components very highly. All were enthusiastic about continuation of the program. In open-ended comments, both staffs pointed positively to increased student responsibility and independence in directing their own learning.

### Summary

Data from the first two years of pilot site evaluations provide evidence that EBCE can be successfully implemented in local schools without additional federal monies and with widely differing





educational resources, staffs, student populations and physical facilities. Outcomes from the evaluations illustrate the following:

- EBCE strategies have proven highly applicable to communities ranging from rural, small-town, suburban to urban and with differing student populations. Evidence indicates that EBCE works equally well for students with college aspirations and students planning on entering the work force immediately after high school graduation.
- The sponsoring laboratories' carefully developed technical assistance and training programs have been successful in communicating essential program elements and in preparing new staff to implement high-quality EBCE programs.
- Students entered EBCE largely to learn about careers,
   prepare for the future, find out more about their own
   values, interests and goals, and to choose a personal
   learning style.
- EBCE students progress in reading and mathematics at a rate at least equivalent to the progress of non-EBCE students.
- Significant growth in career attitudes and career knowledge
   was detected at most sites by a variety of career
   development measures.



- Significant increases in student attitude toward self and others were found at only a few EBCE sites.
- Students, parents and resource persons are very enthusiastic and supportive of EBCE.
- Community resource persons, essential to the successful functioning of EBCE, are not only willing to continue in the programs, but are also willing to recommend EBCE overwhelmingly to other potential community organizations.

  This result indicates that EBCE programs are able to generate strong support and cooperation from the community.

