A model developed by Research for Better Schools, Inc., the Academy for Career Education was an attempt to develop a "pure" transportable model of employer-based career education that provided a comprehensive secondary school education program for students. The year-round program, conducted at about 80 different locations in Philadelphia, involved 100 11th grade students and 100 different employers. The program consisted of four major elements: (1) a governance structure, (2) an evaluation plan, (3) guidance and counseling activities, and (4) an instructional program. Central to the model was the instructional program of: (1) general education, (2) explorative education (career and life skills), and (3) specialized education (career and life skills). Explorative education proved to be the most successful aspect of the model, while general education caused severe operational problems. A central conclusion was that a "pure" employer-based model is feasible only on a small, experimental scale due to employer unwillingness and inability to provide general education independent of the public schools. A modified prototype involving career skills, career guidance, and career development units will be developed in the next contract period; students will participate in the program part-time to supplement their educational program in their home school. (EA)
EXPLORATIONS IN EMPLOYER-BASED CAREER EDUCATION

John A. Connolly

and

Louis A. Maguire

Career Education Program
Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

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The traditional structure of education is under direct attack. Traditional forms of education are labelled joyless, aimless, and endless. Alternative educational programs are proliferating, particularly in urban areas. Some see a need to "deschool society" entirely.

Career education is the latest, large-scale effort to revitalize the educational process. Ever since Commissioner Marland assigned a national priority to career education, there has been a widespread movement to define the concept and operationalize programs in schools throughout the country. After about two years of experience, the concept remains ill-defined and very different kinds of programs are under development. In short, career education is still a concept in search of definition.

The employer-based model is an experimental approach to defining the nature and scope of the career education concept. Employer-based education rests on a simple assumption: a potentially effective alternative to traditional education might involve the use of non-school settings for learning purposes. Independent study programs, work/study activities, schools without walls—all assume that the real world offers a powerful learning stimulus. The central tasks in model development are to identify the learning opportunities in the world at large, to mobilize these environmental resources into a coherent educational force, and to organize the learner to effectively use these resources.

Research for Better Schools, Inc. (RBS) has been developing, operating and testing an employer-based career education model for the past year in Philadelphia. The present paper is a report on the development of the model. It describes the purpose, the practice, and the preliminary results.
of the effort to date. A concluding section discusses the implications of the project for the future of employer-based education.

The Purpose

At the outset, two major goals were stated for the project. The original aim was to develop a "pure" employer-based model. This would involve an attempt to locate all of the instructional, guidance/counseling, and management activities in employer bases and to provide a comprehensive secondary school experience for students through these activities. In effect, the project was designed to research the question: to what extent are employers willing and able to provide a total educational experience for students?

This focus offered some intriguing possibilities. The vast potential of employers for providing career education had never been fully exploited or even systematically explored. Most employers were uncertain about the role they might play in the educational process; communications between educators and employers were typically poor; administrative and legal barriers hindered close cooperation; and some employers were unable or unwilling to risk financial loss. Operational research of the employer potential for providing career education tended to dominate the first year of work in the project.

The second major project goal involved an effort to develop a transportable model of employer-based career education. After achieving a basic understanding of the employer potential for career education, the project focus was to be directed toward developing the prototype instructional, counseling, and management systems required for replicating the model in other settings. Replication and further development might eventually lead
to widespread dissemination of the model. The development of replicable systems is viewed as a prime target for future work in the project.

These research and development goals are equally important and some progress has been made in each area. The nature and extent of this progress is described in the following sections.

The Practice

The employer-based model under development at RBS is called the Academy for Career Education. The Academy is a non-profit corporation licensed by the Commonwealth of Pennsylvania as a private, academic school. A year-round instructional program divided into four three-month quarters is offered at the Academy. Most of the instructional activities are conducted at about 50 different locations in and around the city. The Academy also has a central facility located in a downtown area of the city. The central facility houses the administrative offices of the Academy, the learning center, guidance and counseling activities, and a student lounge area.

The program became operational in September of 1972 with one-hundred eleventh grade students in attendance. These students were randomly selected to represent a cross-section of an urban population. Their I.Q.'s range from 56 to 127, with a mean of 92. About 61% of the students are black, and 39% white. Males and females are equally represented in the population. These students have all the academic and behavioral problems which are commonly found in a disaffected urban population.

The existing prototype program involves four major elements: a governance structure, an evaluation plan, guidance and counseling activities, and an instructional program. The governance structure involves a
seventeen-member Academy Board of Directors which has nine employer representatives, four education representatives, three community representatives, and one union representative. The Board makes all policy decisions with reference to the program. The development of the prototype and its implementation in the Academy are conducted by the RBS staff which includes 26 full-time professionals.

The evaluation plan was designed to focus on information useful in program development. Questionnaires were prepared and administered to staff, students and employers. Pre- and post-tests of aptitude and achievement were administered to students. These data serve as the basics for many of the decisions about the effectiveness of various program components.

Guidance and counseling in the Academy prototype included many traditional activities. Guidance support in the form of scheduling, record-keeping, attendance, discipline, etc., was required. Individual counseling was a major activity since some of the present students have serious personal problems and many faced severe transition problems in effectively utilizing an environment and structure which are more open than that found in their former schools. A coherent, career-oriented guidance and counseling program has not yet been developed primarily because of the pressure to operationalize a comprehensive educational program and to respond to the individual needs of students. Guidance and counseling were not employer based, and too much reliance was placed on one-to-one counseling techniques. By the second quarter of operations, the need to integrate guidance/counseling into the mainstream of instructional activities was seen, and more emphasis was placed on group techniques.

The central element in the existing prototype is the instructional
program since the nature of the instructional activities strongly influences the governance and management of the Academy, the nature of the student personnel services, and the shape of the evaluation. To a large extent, the instructional program defines the existing model. Chart #1 shows the various instructional activities which were planned for the existing prototype under three major educational themes: General Education, Explorative Education, and Specialized Education.

General Education. The content areas commonly associated with a secondary school educational experience were to fall in this category. The instructional content was subdivided into three components: Basic Studies, Extended Studies, and Supplementary Studies.

Basic Studies attempted to provide the cognitive, affective and psychomotor skills which all students needed to master the instructional program of the Academy and to function effectively in later life. Minimum performance standards were defined for some of these skills, and students were measured against these criterion-referenced standards. The cognitive area was designed to include skills in communication arts, mathematics, listening and thinking; plans for the affective area involved basic in intra- and inter-personal behavior; and the psychomotor area was to address perceptual, motor and physical skills.

This conception was never fully realized. Basic skill and advanced programs in communication arts and mathematics were implemented in a learning center at the central facility. Repeated efforts to locate these programs in employer bases met with scant success. An individual physical fitness program, conducted at YMCA's and similar organizations in the city, was prepared for each student. The costs of coordinating, supervising and implementing the physical fitness program are relatively
high compared to public school expenditures in this area. Programs in intra- and inter-personal behavior as well as perceptual and motor areas were never fully implemented in the General Education theme due to the unavailability of appropriate curriculum materials in these areas. An abortive attempt was made to develop these materials.

Extended Studies was planned to include curriculum content in the natural sciences, the social sciences, the humanities, and the arts. An instructional program in the arts was developed in cooperation with the Art Alliance, a professional association of artists in the city. It provided a series of lectures and demonstrations in the major fields of art for all students during the first quarter of operations. The large group instructional mode caused widespread student dissatisfaction. After the series of lectures and demonstrations, some students worked with professional artists in the areas of their choice. The participation of the Art Alliance and the subsequent work with individual artists were prohibitively expensive because many artists insisted on receiving full consulting fees for direct involvement with students. As a result of the Art Alliance experience, it was decided to postpone further work in the other three areas in Extended Studies.

Supplementary Studies included a variety of optional activities which were to be tailored to individual student needs and interests. Eighty-two different kinds of learning experiences were offered in this part of the program alone. Different approaches were attempted to provide a full range of optional learning sequences for student choice. Participating employers were surveyed to enlist the cooperation of qualified staff members in conducting small group seminars. Since the response from employers was quite
limited, extensive use was made of community and other forms of volunteers. Also, each student was given a one hundred and fifty dollar allocation which was to be used to pay tuition fees for educational services offered by individuals and commercial institutions in the city. Most of the students have not used their full allowance, and only a few of the courses were enthusiastically endorsed by the students. Computerized courses, developed by the School District of Philadelphia, were implemented and received favorable response from staff and students.

Implementation of the entire General Education theme caused the most severe problems in trying to operationalize the prototype. It was a matter of trying to do too much in too many different areas, utilizing too many unproven techniques.

**Explorative Education.** The purpose of Explorative Education is to provide a wide angle view of the world of work and of a series of life situations. Two different kinds of explorative experiences were provided in the existing prototype: Career Exploration and Life Skills Exploration.

Career Exploration offered students a broad perspective of the economic system and career opportunities through a series of structured examinations of employer clusters. Each student explored a different cluster area each quarter. A cluster was formed by three related employers. For example, the Finance Cluster included a bank, an insurance company, and a brokerage house. The cluster areas of Apparel, Communications, Finance, Government, Health, Logistics, Manufacturing, Motels/Hotels, Research, Sales, Systems, and Utilities were offered with the cooperation of forty different employers. Each student spent one or two days a week at the employer locations for these cluster explorations. A World of Work Seminar,
conducted by the Greater Philadelphia Chamber of Commerce, provided an opportunity for students to share their cluster experiences and problems and to discuss their career plans. Cluster explorations were very favorably received by the students; the World of Work Seminar was rated quite low. Evaluative data on student learning of career and academic concepts in cluster explorations are not yet available.

Career Exploration involved a study of the world of work; Life Skills Exploration included study of many other aspects of living. Students participated in a series of Workshops in Living conducted at the central facility. The Workshops utilized small group discussions to focus on the general topics of motivation, values clarification, and problem solving. The Workshops emphasized the affective area, which was neglected in General Education, and became a major vehicle for group counseling in the Academy prototype. A continuing problem has been the inability to find an employer base for these activities.

On the whole, Explorative Education has been the most successful theme in the existing prototype.

Specialized Education. The final theme in the Academy prototype, Specialized Education, allows the most extensive involvement with actual career and life skills experiences. The instructional design was again organized around two components: Career Specialization and Life Skills Specialization.

Career Specialization consisted of two related kinds of learning experiences: internship and residency. The internship is an intermediate step between the rather general study of career opportunities offered in exploration and the more detailed work experience provided in a residency.
The internship allows a student the opportunity to work at a selected employer location in a career area of particular interest for one or two days a week for one quarter. The residency is an intensive examination of a specific job in an employer setting for two or three days a week over two or more quarters. The internship provides rather general job related skills; the residency includes the acquisition of more sophisticated work skills.

A work/study plan for each internship and residency is developed in negotiations among the student, the employer and the Academy staff.

Approximately one quarter of the present students have undertaken an internship during the third quarter of operations. No residencies have yet been established. Career Specialization needs to be carefully designed, developed and implemented on a larger scale before its effectiveness can be tested.

Life Skills Specialization afforded students the opportunity to participate in activities termed action groups and projects. These activities were designed to help students develop and apply the skills learned in Life Skills Exploration in real world settings. Both the action groups and the projects were to be conducted under the auspices of public service agencies. Again, only a few students were actively participating in Life Skills Specialization during the third quarter, and more experience is needed in this area.

In summary, the existing prototype has not delivered all of the instructional activities which were planned for the model. The existing prototype does, however, provide a comprehensive secondary school educational program for students.
The Result

The result of the experience to date can be summarized in terms of one central conclusion: a "pure" employer-based model is feasible only on a small scale, experimental basis. In other words, the existing prototype has little or no widespread replication potential for the following major reasons:

1. The employer population is generally unwilling, by itself, to provide comprehensive education for students. While the 100 different employers involved in the project do not speak with a single voice, they are united on at least one issue: all are willing to assist public education, but none believes the employer community should assume full responsibility for public education. Employers prefer to limit their instructional activities to areas directly related to their work such as job skill training. With strong guidance and assistance, many organizations will attempt to integrate academic instruction with job skill training. So, for example, chemistry can be taught in connection with hospital training, mathematics as part of computer studies, etc. Yet there are some aspects of education that employers feel the schools must provide. Basic education in reading is one example. In the existing prototype, some instructional activities were conducted at the central facility simply because employers refused to assume responsibility for these activities.

2. The employer community is presently unable to provide comprehensive education for more than a miniscule number of students. A variety of incentives was used in the project to test the limits of employer involvement in education. The local Chamber of Commerce provided strong assistance in soliciting employer involvement; some employers were reimbursed for
direct expenses; and the project staff worked closely with employers to plan
their programs. The result was a "not-quite comprehensive" form of education
for about 100 students at about 100 employer locations. There are about
38,000 business organizations in Philadelphia with approximately 103,000
secondary school students enrolled in the public schools. Even a much
larger group of employers would be able to provide comprehensive education
for only a small number of the students in the city.

3. Comprehensive employer-based education provides no future funding
mechanism when external funding ceases. Some observers and participants
originally believed that employers would be willing to totally finance the
model. After a year of operational experience, this belief appears totally
unjustified. If the model is to have widespread impact, it must tap the
most significant source of educational funds, the local school district
and state-related financing of local districts. The model does not and
will not have major replication potential outside of the public system of
education, if only on the basis of financing.

4. The projected costs of delivering the existing prototype far
exceed per pupil expenditures by the public schools. The present opera-
tional per pupil expenditure for the prototype is about $5,000. The opera-
tional costs were naturally high during the start-up phase of the program.
Also, this figure includes some operational expenditures which many public
schools do not calculate in their operational per pupil costs, such as
indirect costs. Even taking these factors into consideration, the opera-
tional costs for the prototype are much higher than the current public
school per pupil costs. Cost reductions can be achieved by limiting the
nature of employer involvement to those areas which are more directly related
to their area of interest and expertise.
These considerations led RBS to modify the existing prototype. The modified prototype does not, by itself, attempt to provide a comprehensive educational program for students. Instead, the focus is on the concentrated development of a "core" educational program which will be implemented and field tested in the Academy during the next year.

Seventy-five new students will be recruited from the public schools under a released time arrangement to participate in the program for two or three days a week. They will receive the remainder of their educational program at their home school.

Chart #2 outlines the modified prototype to be developed. Only a summary description of the new model is presented since many of its components are similar to the ones described in the existing prototype. The modified prototype has three major units or themes in its core program: the Career Skills Unit, the Career Guidance Unit, and the Career Development Unit.

**Career Skills Unit.** The Career Skills Unit is the counterpart of General Education. However, only communication arts and mathematics are now covered under this unit. Major problems with the techniques used to provide instruction in other content areas led to an exclusive focus on mathematics and communication arts. An attempt will be made to incorporate other content areas into the Career Development Unit. Two major components form the Career Skills Unit: Basic Studies and Applied Studies.

The objective of Basic Studies is to develop a proficient level of literacy in all students. Literacy is somewhat arbitrarily defined at a level which is equivalent to ninth grade performance on standardized tests of reading and mathematics. This implies the ability to interpret the
flow of written and printed language that daily converges on most adults, e.g., job applications, credit applications, communications from employers, schools and government, newspapers, etc. Also implied is a sufficient understanding of the concepts and operations of mathematics to permit reasonably effective functioning both on the job and in personal life, e.g., budgeting time and money, performing home maintenance tasks, following recipes, etc. Individualized Learning for Adults (ILA), a system of instruction in communication arts and mathematics developed at RBS, will be adapted for this component. The learning activities will continue to be conducted at the central facility.

The Applied Studies Component affords the student the opportunity to consolidate, refine and extend his control of basic skills by means of guided use in content related to his career interests. It provides instruction in the application of basic skills to particular career interest areas selected by the student. This component will use curriculum materials which are organized and sequenced to further develop communication arts and mathematics skills in various career areas. The curriculum will be drawn from published sources and other materials developed for use in employee orientation and training programs. For example, a student interested in computers as a career might study IBM training manuals to develop his control of some of the mathematical concepts used in data processing.

The Career Skills Unit is being developed for eventual replication and dissemination in school bases.

Career Guidance Unit. The Career Guidance Unit is a new addition in the modified prototype. The problems associated with the present guidance program, coupled with the vital need to provide for the personal
development of students in a career education context, have led to a complete restructuring of this part of the prototype. In the new design, guidance involves a significant amount of instructional activity. The design also attempts to integrate the various counseling and guidance functions in terms of a career orientation. The operation of this entire area will be placed under the auspices of the Greater Philadelphia Chamber of Commerce to strengthen the program and focus its orientation. RBS will continue to develop these programs. The Life Skills Exploration and Specialization content in the existing prototype is now subsumed under the Career Guidance Unit. The unit has three major components: Transition Programs, Personal Development Programs, and Placement Programs.

Transition Programs are a response to two major problems in the existing prototype. First, students from a traditional school environment need a strong orientation to effect a transition into the relatively free environment of the employer-based model. For example, many students had never experienced an individualized learning approach, assumed responsibility for independent learning, learned the rules for behavior at employer sites, or attempted to travel about the city. An intensive orientation spanning the student's entire first year in the model is planned. Second, the students lacked even a fundamental understanding of their own strengths and weaknesses and had virtually no conception of their career goals. The response to this problem is a structured audit of personal needs and aspirations using a variety of assessment techniques supplemented by individual counseling.

Personal Development Programs are a direct extension of the curriculum used in Life Skills Exploration. A Career Information and Guidance System
will be created to serve as an umbrella for guided instruction in goal setting techniques, decision-making techniques, managing a career, etc. Developmental Guidance Groups will be structured to make maximum use of this system and will draw together the activities which were previously conducted in the World of Work Seminar and Workshops in Living. Transactional Activities are a refinement of Life Skills Specialization where students apply some of the skills learned in these groups to live situations and hopefully obtain understanding of individual abilities, attitudes, interests and goals as applied to participation in all elements of the model.

Placement Programs attempt to achieve a match between the student's aspirations and the available opportunities in the world of work or in further education. Vocational guidance for appropriate placement of students requires information systems to provide a continuous flow of data about the job and college situation. Some preliminary techniques will be developed for using this information to adjust the educational process in the model to meet the changing demands of the job market and the higher education scene.

Career Development Unit. The Career Development Unit consists of Career Exploration and Career Specialization. The essential design for these two components is similar in many respects to that in the existing prototype. Both of these components will be greatly expanded next year by adding new employers, especially small businesses. A strong effort will be made to blend additional academic skills into the existing programs and to add new clusters in academic areas. For example, a Chemistry Cluster might be developed using chemical companies in the area or an
Arts Cluster might be developed using the art departments of a number of firms. Again, the Chamber of Commerce will assume operational responsibility for this part of the program with RBS providing the developmental support.

In summary, a modified prototype will be developed in the next contract period. The modified prototype involves a core program, consisting of three units: Career Skills, Career Guidance, and Career Development. The three units in the core program, when coupled with a supplementary educational program, deliver a comprehensive secondary school experience.

Implications

What are the implications of these preliminary results for the future of employer-based career education? Under certain conditions, RBS feels the model can ultimately provide an effective supplement to traditional education. The critical issue is the need to provide a delivery mechanism for widespread dissemination of the model.

This essentially involves the development of new employer-school structures. The strategy under development in the present project involves the use of the local Chamber of Commerce in a cooperative relationship with the Philadelphia Public Schools. The Chamber will organize the employer community and operate the program. The School District will select students for the program and complement their education in employer bases with courses in their home schools. RBS will facilitate the interaction by developing the necessary curricula, materials, and procedures.

There are employer organizations similar to the Greater Philadelphia Chamber of Commerce in locations throughout the country. These organizations could play a major role in setting up and delivering the employer-based and
other career education models. The Philadelphia experience may provide a direction for establishing productive interagency relations in other areas.

In conclusion, our experience suggests that employers are neither willing nor able to provide comprehensive education for students independent of the public schools. This finding is quite tentative. Our efforts were limited by the amount of time available and the level of insight and imagination we were able to bring to the task. Perhaps the other labs who are also building an employer-based model will find a way to deliver comprehensive education in employer bases (i.e., Far West Laboratory for Educational Research and Development, the Appalachia Educational Laboratory, and the Northwest Regional Educational Laboratory). In any event, employers hold enormous potential for delivering career education. The challenge for the future is to determine how to use them.
REFERENCES


