The combination of course work and related work experience into educational programs at the junior college level represents an attempt by these institutions to meet the changing requirements of today's employers. This Research Review looks at a few aspects of their programs. To begin with, the values of these programs are viewed from the standpoint of students, college, employer, and community. Next, the promotional responsibilities of both the program's advisory committee and the individual program coordinator are investigated, followed by a look at various program arrangements. The wide variety of program possibilities becomes evident as one views Rock Valley College's (Illinois) cooperative technical program with 40 local industries, the College of San Mateo's (California) teacher-assistant training program, and the potential benefits of combining a college education with the traditional police cadet training system. Significant areas of difficulty reported by colleges include student supervision, relevance of work experience to course work, scheduling conflicts, financial remuneration, and placement. Looking toward the future, San Mateo and Orange Coast Junior College Districts in California have received federal and private support to provide a national demonstration model for junior college cooperative education. (JO)
COOPERATIVE WORK-EXPERIENCE EDUCATION PROGRAMS IN JUNIOR COLLEGES

Occupations within business and industry are more specialized and diversified than ever before. At the same time, an ever-increasing share of the responsibility for providing post-secondary education in this country is being allotted to the junior college. Unfortunately, many junior colleges find themselves in the almost universal quandary of lacking funds, facilities, and manpower. To meet their educational responsibilities, junior colleges have had to adapt both their curricula and teaching methods to make student learning experiences compatible with, and relevant to, the needs of business and industry. One innovation that has grown in application and scope is the cooperative work-experience education program, which combines course work and work experience. These programs are distinguished from other types of student employment, which may be only casual in nature, by the fact that in them the student’s employment is an integral part of his college program and is supervised and evaluated cooperatively by a college coordinator or instructor and his employer.

Those interested in exploring the possibilities of cooperative work-experience programs for their college may ask the following questions: What are their specific benefits? What types of curricula lend themselves to this cooperative arrangement? How are the programs administered? What problem areas can be anticipated and possibly avoided, through careful planning?

This issue of the Junior College Research Review addresses those aspects of cooperative work-experience education programs. Documents cited in this review were selected from materials received and processed by the ERIC Clearinghouse for Junior Colleges. All documents listed in the bibliography have been announced in Research in Education and may be obtained from EDRS, as explained on page 4.

VALUE OF COOPERATIVE WORK-EXPERIENCE PROGRAMS

Cooperative work-experience programs have a demonstrated value for students, participating colleges, the cooperating employers, and the community. Specific areas in which each may benefit from the programs have been outlined in the Handbook on Work Experience Education, California State Department of Education, 1965, and are noted in Hayes (ED 031 220 and ED 035 397). The following have been selected from among those listed.

Value to Students
1. augments the financial resources of the students and assists them to remain in school
2. develops an appreciation and understanding of the relations between formal education and job success
3. gives students who must work a feeling that their jobs have added importance
4. broadens their understanding of the occupational world and of conditions in the world of work

Value to the College
1. provides an opportunity for the school to relate academic training to job requirements
2. uses many community facilities and resources for training purposes, making it possible for the college to provide training in fields that it could not otherwise serve
3. enables the college to keep abreast of developments in the business and industrial world
4. provides a direct avenue through which the college can meet community needs

Value to the Employer
1. provides him with carefully selected, part-time help who may become permanent at a later date
2. provides him with employees who are receiving additional training through related instruction at college
3. serves as a training program for prospective employees of small businesses or industries unable to conduct extensive training programs of their own
4. reduces turnover because the employees have become adjusted to the job before they accept full-time employment

Value to the Community
1. provides the community with an increased source of well trained workers
2. provides the community with a labor force that is more thoroughly trained than graduates who have not had work-experience education, and hence works more efficiently
3. increases cooperation between the community and the school
4. increases the possibility that young people will remain in the community after graduation, since they will already have found a place in it

ORGANIZATION AND STRUCTURE

Two factors that may be considered central to the development and eventual success of a cooperative work-experience program are the function of the advisory committee and the program coordinator.

As pointed out in one article (ED 031 184), it is difficult to over-estimate the importance of the role of the advisory committee in promoting the success of coop-
operative work-experience education programs. The committee can be helpful in developing and maintaining these programs by:

1. supporting the program coordinator and assisting officials in the establishment of broad policies
2. establishing and maintaining contacts among community agencies to insure employment opportunities for program graduates
3. absorbing feedback from the community and helping the college use this information to assess the goals of the college and develop new operational goals as the need arises.

As a rule, the advisory committee should be a strong advocate of work experience; this group can “sell” these programs to community agencies very effectively.

The program coordinator has been identified by some as the key to the success of cooperative work-experience programs. The following are examples of how the coordinator can promote the success of his programs. He should:

1. be personally convinced that the work-experience concept is a valuable educational method
2. utilize the feedback from individuals and agencies associated with the program to evaluate its effectiveness from year to year
3. communicate with operational units in all areas of student work assignment (personal contacts with participating agencies should be made before approaching them for student work assignments)
4. establish the maximum number of students he can adequately supervise, as a successful program depends on a realistic span of supervisory control (ED 031 184).

Various arrangements may be made for dividing students’ time between work and study. The program may be structured to provide a semester of college study followed by a semester of work or students may go to school and work at the same time—attending classes for half a day and working the other half—or it may be arranged on a purely summer basis (ED 031 184).

There is also variation in the amount of college credit awarded for this type of program. It has been recommended, however, that rarely should a college give credit in excess of six semester hours for any work-experience combination (ED 031 184).

Although business and industry are often receptive to the idea of the cooperative work-study arrangement (one study (ED 032 039) found that 80 per cent of 50 employers interviewed agreed with the principle of the plan and felt that they could use it), steps should be taken to insure their continued support. Recommendations that have been made (ED 032 371) include:

1. Agency personnel should be involved in the planning of the program; they should be allowed, even encouraged, to express their views on how the program is to be operated.
2. Various departments of the cooperating agency should be involved—the executive staff, the supervisory staff, and the public relations staff, as well as the training directors.
3. A training program for the college teaching staff and the agencies’ supervisors to keep each other informed of what they are doing can lead to a better understanding of the total program.
4. Programs should be scheduled well in advance, providing the college as well as the agency with ample time for planning.

**REVIEW OF SELECTED PROGRAMS**

The Career Advancement Program (CAP) is a unique cooperative program in technical education at Rock Valley College, Illinois (ED 023 371 and ED 023 397). In its first year, 1967, approximately 40 industrial firms joined with the college to expand educational opportunities for students, to orient the college’s programs locally, and to meet their own short- and long-range technical manpower needs. Students attend classes and work each day, with classes in the morning and work in the afternoon or vice versa. This program is unique, however, in that:

1. Industry takes the lead in finding student-trainees. The college cooperates with industry in finding students who are interested in technical education, but industry leads the way.
2. Any student who is enrolled in CAP must first be hired by a cooperating company and go through the regular employment procedures of the company in which he is interested.
3. No academic credit is given for the work-experience portion of CAP. Each company gives its trainees the on-the-job experience it feels they should have.
4. The training stations are established by the cooperating industries.

Although cooperative work-experience education programs are typically business- or industry-related, this approach may be applied to other curricula.

The College of San Mateo has reported a proposal for a teacher-assistant training program with cooperative education field experience as a part of the curriculum (ED 032 038). The program is designed to generate para-professionals trained to work under the direct supervision of certified teachers, assisting them in the accomplishment of their professional duties and responsibilities. As an integral part of their program, students work in a paid, cooperative arrangement with local school districts on either a part-time (an average of fifteen hours a week) or alternate-semester basis. Work stations are available at the elementary and secondary school levels as well as in college readiness tutoring. This flexibility allows the graduates to seek and find employment at many levels in the school system—from kindergarten through junior college.

A document on law enforcement education describes how cooperative work-experience education may enhance these programs (ED 019 985). Police agencies have traditionally trained their recruits without association with a college program; the cadet system, however, may provide a promising possibility for work-study arrangement. Although few agencies currently require that cadets attend college classes, the President’s Commission strongly recommended that all of them be required to attend a college or university on a full-time basis. Combining college education with the traditional cadet system would not only attract and hold qualified young people in the police service but would also produce, at twenty-one years of age, a candidate for police service who has not only received training, experience, and education, but also has been closely observed over a period of years for defects in
character or attitude that would adversely affect his performance as a policeman.

**EVALUATION**

As in any type of college program, the success and progress of students participating in cooperative work-experience education programs must be evaluated.

Evaluation instruments should be designed to identify areas in which students demonstrate superior ability and performance as well as those in which they need improvement, e.g., their relationships with coworkers and their work habits. Evaluation, conducted by agency and college supervisors familiar with the students' work, should be integrated into the educational process; that is, provision should be made for the students to profit from the evaluation (ED 031 184).

Two documents provide samples of rating forms for evaluating student performance (ED 031 184 and 032 039).

**PROBLEMS ASSOCIATED WITH COOPERATIVE WORK-EXPERIENCE PROGRAMS**

Five major problem areas have been identified by B. Lamar Johnson in his book, *Islands of Innovation Expanding* As cited in two articles by Hayes (ED 031 220 and ED 035 307) they are:

1. Coordinated college-employer supervision of student employment. At times, students report that inadequate supervision is provided by the college and/or the employer. In particular, such supervision is occasionally not coordinated at all, so that employers and college staff members give conflicting advice.

2. Relationship between college courses and employment experience. Students at a number of colleges report that their course work is but slightly related to their work experience.

3. Conflicts in scheduling work experience and college classes. This problem is, of course, eliminated when the student, at alternate periods, studies full-time and is then employed full-time.

4. Student overemphasis on financial remuneration in his employment. Students, it is reported, often wish to accept higher-paying employment that is only indirectly related to their course work, rather than lower-paying positions directly relevant to their educational goals.

5. Student placement. On occasion, even though students are placed in positions for which they are qualified and which are related to their educational and occupational goals, employers are not satisfied with their work. (This is seldom reported, however. High employer satisfaction appears to be the rule.)

**SUMMARY AND CONCLUSION**

Cooperative work-experience education programs have demonstrated benefits for the community, college, cooperating agencies, and, most important, for participating students. Students can gain more from their classroom experience when they are able to use the skills and knowledge learned in a work situation and, further, experience gives them a chance to learn firsthand about the requirements of the world of work.

This type of cooperative arrangement has been applied to a wide range of curricula. Although most commonly associated with business and vocational courses, these programs have also been successful in preparing students for more professional careers.

Serving the dual purpose of providing students with a meaningful education and supplying a work force prepared to meet the needs of today's employers, cooperative work-experience education programs may well play an increasingly important role in junior college education.

The ERIC Clearinghouse for Junior Colleges welcomes reports of additional studies relating to work-experience education programs.

As we go to press, we find other items of probable interest to readers of this issue of the Junior College Research.

**In Progress**

A program is currently being developed within San Mateo and Orange Coast Junior College Districts to provide a national demonstration model for cooperative education in community colleges. This program, developed in cooperation with local business and industrial leaders as well as with government and social agencies, will allow students in a wide variety of college curricula to supplement their course work with related employment experiences. The two-year experimental phase of this program was conducted within San Mateo Junior College District with support from the Ford Foundation. A three-year award of federal funds will help support the demonstration model program to be implemented in the junior college districts in fall 1970. Forthcoming reports concerning this program will be added to the ERIC collection and announced in Research in Education.

**Additional References**

The Center for Vocational and Technical Education, at Ohio State University, in conjunction with the ERIC Clearinghouse on Vocational and Technical Education, has recently published a state-of-the-art paper, *Review and Synthesis of Research on Cooperative Vocational Education*. The paper is designed to help identify substantive problems and methodological approaches for researchers and curriculum development specialists as well as provide practitioners with a summary of research findings directly applicable to educational programs.

Within the next few months, a new publication developed by the Occupational Education Project of the American Association of Junior Colleges, with assistance from the W. K. Kellogg Foundation, will be released. The publication, *Cooperative Education and the Junior College*, by Robert L. Brown, will provide practical guidelines for junior college administrators and board members as well as for industrial leaders interested in the development of cooperative occupational education programs.

These two documents will be added to the ERIC collection and announced in Research in Education.

Additional references to reports dealing with cooperative work-experience education programs may be found in *Abstracts of Instructional Materials in Vocational and Technical Education* (AIM) and *Abstracts of Research and Related Materials in Vocational and Technical Education* (ARM). (These are publications of the ERIC Clearinghouse for Vocational and Technical Education, Ohio State University, Columbus, Ohio 43212.)

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