The development of the largest school-based career education model program, by the Center for Vocational Education (CVE), went through several stages. The three levels of career awareness, career exploration, and vocational preparation became an integral part of the Comprehensive Career Education Model (CCEM) at an early stage. Eight elements were derived from eight statements which defined areas considered to be essential in career education. CVE, in cooperation with six school districts, designed and prepared some 133 K-12 career education curriculum units, 45 of which have been revised and field tested by CVE. Sixty-one other units are being revised and field tested by the American Institutes for Research (AIR). The entire set of units was intended to be illustrative rather than comprehensive. The thrust of the AIR project has been for impact. Three groups, publishers, school administrators, and teachers, were surveyed to determine their needs and goals and their reactions to the current form of the units. The units were then analyzed and their content coded on a lesson-by-lesson basis. These data will be used in revision to prevent redundancy and assume that a coherent career education program will evolve from the revision process. Further revision and field testing will be followed by arrangements for commercial publication. (Author/SA)
BACKGROUND

The need for career education is typically expressed in statistics regarding school drop-outs and unemployment among young adults. Sidney Marland pointed out in 1971 that high school emphasis upon preparation for higher education actually served only about 20% of students who eventually earned a baccalaureate degree. Of the remaining 80% of students, only one-fourth received occupational training. The unemployment rate among 16 and 17 year olds was nearly five times the adult rate.

When Marland raised the banner for career education in 1971 the prevailing notion had been that education was the avenue to higher socio-economic status. Admission to elite society via education was achieved on the basis of proven academic ability in high school. School took seriously their commission to weed out the ineligibles. Schools were an impartial proving ground where ability and merit, not wealth and influence, earned the student his ticket to college or university.

Many reasons could be cited in an attempt to explain a developing disillusionment with this arrangement. Perhaps riots on campuses made parents wonder if they really wanted their children to go the academic route after all. Perhaps the growing number of unemployed college graduates added to their doubts. Perhaps most influential was the fact that schools were not preparing 60% of students to make their way in this life.

The concept of career education seems to have struck a responsive cord with teachers and parents. Career education helps students earn a self-supporting role in their community. This is quite a reversal from the previous emphasis in which education was a stepping stone for getting out of the community and moving up the ladder of success.

FOUR MODELS OF CAREER EDUCATION

From its inception in 1971 when career education was made a primary concern of the U.S. Office of Education, attempts were made to keep career education flexible and responsive to public needs. It was purposefully undefined. If definitions were to be given, they were to spring from local manifestos.
Career education was not confined to schools. In fact, only one of the four career education models which evolved was a school based model. The other three were experience-based, community based and rural residential models.

The experience-based model began as the employer-based model. Its objective was to provide secondary level students with a comprehensive education outside the traditional academic environment. It represented an alternative to traditional school. The home/community based model was aimed at already out of school youth and adults who wanted some additional structured learning opportunities. The residential-based model was designed for disadvantaged rural families.

All four model programs were transferred to the National Institute of Education in 1972.

THE SCHOOL BASED MODEL: A COMPREHENSIVE CAREER EDUCATION MODEL

The largest school based model program was developed at the Ohio State University Center for Vocational and Technical Education, now the Center for Vocational Education. It came to be called the Comprehensive Career Education Model or CCEM. It encompassed the kindergarten through 12th grade curriculum and its purpose was to infuse that curriculum with a career education thrust.

Developmental Stages and Career Education. CCEM was not manufactured from nothing. There was, of course, the long standing tradition of vocational education and vocational guidance going back almost to the turn of the century. More refined conceptualizations of career development began to emerge in the 1950's. Super (1957), for example, related career patterns to life stages. He pointed out the parallel between Buehler's five life stages and Miller and Form's five work periods:

<table>
<thead>
<tr>
<th>Buehler</th>
<th>Miller and Form</th>
</tr>
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<tbody>
<tr>
<td>Growth Stage</td>
<td>Preparatory Work Period</td>
</tr>
<tr>
<td>Exploratory Stage</td>
<td>Initial Work Period</td>
</tr>
<tr>
<td>Establishment Stage</td>
<td>Trial Work Period</td>
</tr>
<tr>
<td>Maintenance Stage</td>
<td>Stable Work Period</td>
</tr>
<tr>
<td>Decline Stage</td>
<td>Retirement Period</td>
</tr>
</tbody>
</table>
Thus, the concept of occupational choice, around the 1950's evolved into a concept of career development. Career development implied levels of career maturity. Career maturity was more than a set of skills, it was said to represent emerging self identity. One whose career thrust was toward farming, for example, would usually say, "I'm going to be a farmer." He probably wouldn't say, "I'm going to do farming."

The concept of career development was highly compatible with the concept of educational development. Thus, Robert Taylor of the Center for Vocational Education (CVE) at Ohio State University, posited five developmental stages of career education:

- **Level I:** Career Awareness - grades K-6
- **Level II:** Career Exploration - grades 7-9
- **Level III:** Vocational Preparation - grades 10-12
- **Level IV:** Post Secondary Training
- **Level V:** Continuing Education

The first three levels became integral to the CCEM project. Level I, career awareness, is concerned with exposing students to the broad spectrum of careers in services and in the production of goods. Students begin to note differentiations of skills among jobs. Level II, career exploration, concerns a more refined grouping of jobs into career clusters, usually 10-15 of them. Emphasis is given to real-life observation and some hands-on experiences. Students note the realities of life in specific jobs and the affects of particular jobs upon one's life style. Level III, vocational preparation, focuses upon entry level job skills and/or requirements for post-secondary education.

**Eight Elements of Career Education.** The content of career education was formulated at CVE as eight elements listed as element inputs and outcomes:

- Self-Awareness —> Self Identity
- Educational Awareness —> Educational Identity
- Career Awareness —> Career Identity
- Economic Awareness —> Economic Understanding
- Decision Making —> Career Decision
Beginning Competency  Employment Skills
Employability Skills  Career Placement
Attitudes and Appreciations  Self-Social Fullfillment

These elements were derived from eight statements which defined areas considered to be essential in career education. In order to develop career capabilities and career identity, it is essential that a person...

1) ...know himself and develop a personal value system.
2) ...perceive the relationship between education and life roles.
3) ...acquire knowledge of the wide range of careers.
4) ...be able to perceive processes in production, distribution and consumption relative to his economic environment.
5) ...be able to use information in determining alternatives and reaching decisions.
6) ...acquire and develop skills which are viewed as the way in which man extends his behavior.
7) ...develop social and communication skills appropriate to career placement and adjustment.
8) ...develop appropriate feelings toward self and others.

CCEM Units. CVE, in cooperation with six school districts across the country, designed and prepared some 133 career education curriculum units for grades K-12 and for infusion into all subject areas. Forty-five of those units were revised and field tested by CVE. On the basis of field test data, those units were revised again and condensed into 30 units now being published by CVE.

Of the other 88 units, 61 are being revised and field tested by the American Institutes for Research (AIR). The other 27 units are very job specific and have been put aside for the time being, since they overlap somewhat with traditional vocational education.

The entire set of units was not intended to be a comprehensive career education curriculum, but rather illustrated the direction in which such a curriculum might evolve in a given school system.
TENTATIVE DESIGN AND SCHEDULE OF THE AIR PROJECT

The thrust of the AIR project has been for impact. Such an emphasis has led us into a couple of areas where research institutions have not typically delved. The first area is market analysis and the second is publisher dialogue and involvement during the development of materials.

We identified three key groups that stood between us and potential impact upon students: publisher, school administrators and teachers.

The first phase of the project was to survey these three groups to determine their needs and goals and their reactions to the current form of the units. Next we analyzed and coded the content of the units on a lesson-by-lesson basis. There were more than 700 lessons.

These data will be used in revision to prevent redundancy and assure that a coherent career education program will evolve from the revision process.

All publishing companies who receive announcements from NIE's Publishers Alert Service have been notified of the availability of these CCEM units for publication. One or perhaps more than one publishing company who wants to publish materials will be selected to work with AIR in formulating specifications for revision. As the materials are revised and field tested over the next 14 months, they will be reviewed by NIE and then given to the publisher.

Dr. Dunn will next discuss AIR's background in career education. Then Dr. Haveman will describe the marketability survey. Then Dr. McLeod will discuss current activities and status of the project.