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AUTHOR Taylor, Robert E.
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ABSTRACT

The primary motive for developing career education is the large number of students graduating or leaving schools who are unable or ill-equipped to enter the labor force. This situation is compounded by a fragmented, disjointed, and uncoordinated educational system. The concept of career education is not a new or revolutionary idea; rather, it has evolved as a result of redirected educational goals, educational legislation, and research in human development. Career education has not been precisely defined, but it has been conceptualized as a systematic attempt to increase the career options open to students and to facilitate more rational and valid career planning and preparation. Career education is viewed as a developmental process beginning in kindergarten and extending throughout a student's schooling. The student progresses from awareness and orientation to exploration and skill development in a continuous advancement toward a career. Currently, there are four alternative ways of delivering or facilitating career education goals, including school-based, employer based, home-based, and residential-based models. Each of these models is described, and several factors to be considered in undertaking this major redirection of the American school system are presented and discussed. (Author/SB)

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PERSPECTIVES ON CAREER EDUCATION

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Robert E. Taylor
Director

The Center for Vocational and Technical Education
The Ohio State University, Columbus, Ohio

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ABSTRACT

The primary motive for developing career education is the large numbers of students graduating or leaving schools who are unable or ill-equipped to enter the labor force. This situation is compounded by a fragmented, disjointed, and uncoordinated educational system.

The concept of career education is not a new or revolutionary idea; rather, it has evolved as a result of (1) redirected educational goals, (2) educational legislation, and (3) research in human development. Career education has not been precisely defined, but one concept sees it as a systematic attempt to increase the career options open to students and to facilitate more rational and valid career planning and preparation.

Career education is viewed as a developmental process which begins in kindergarten and extends throughout a student's schooling to grade twelve. The student progresses from awareness and orientation to exploration and skill development in a continuous advancement toward a career.

Currently, there are four alternative ways of delivering or facilitating career education goals -- school-based, employer-based, home-based, and residential-based models. A successful program depends in large measure on the quality of leadership. Many factors are considered in undertaking this major redirection of the American school system. These factors include: (1) determining the knowledge of and beliefs toward career education of key community groups; (2) determining the readiness of educational staff to provide leadership in career education; (3) exploiting the knowledge base of career education; (4) visiting ongoing programs; (5) securing broad action and establishing long-range goals; (6) matching current programs with career education goals; (7) involving the community in developing career education; (8) assessing alternative delivery systems; (9) initiating staff development programs; (10) establishing instructional materials development teams; (11) reviewing manpower projections; (12) expanding cooperative education; (13) providing continuing education; (14) initiating a community information program; (15) establishing career education advisory councils; (16) operating a job placement service; and (17) maintaining internal evaluation.

Career Education

I am grateful for the invitation to return to my native state and appreciate the opportunity of participating in the Oregon Association of School Administrators Conference. Despite the professional and personal magnetism drawing me to this assignment, I accepted with some misgivings since you in Oregon are fortunate in enjoying outstanding leadership in the area of career education. Keith Goldhammer, Dale Parnell, and Leonard Kunzman, in consort with members of this group, have provided intellectual stimulation and concrete performance in this area. Collectively you have brought recognition to the state and are providing national leadership in career education. Your state's objective of having approximately one-half of all high school students enrolled in job cluster programs by 1975 is a worthwhile and challenging goal.¹

¹"Where the Action Is." Nation's Schools, December, 1971.

Perhaps one of the major attractants for me in this conference was the opportunity to think through some of the concepts and implications of career education and to interact with you, formally and informally, concerning what is rapidly becoming our major national educational priority.

In my time with you today, I would like to quickly highlight the need for career education, trace some of its antecedents, discuss major dimensions of the concept, share with you progress on the National Career Education Models and, finally, discuss career education's implications for educational administrators.

Need for Career Education

To establish the need for career education, it is not necessary to enumerate in full detail the range, magnitude, or intensity of the problems currently faced by society and the educational profession in preparing individuals to become effective, contributing members of society. To highlight but a few -- among youth we find truancy, alienation, drug addiction, unemployability, and in too many cases, misunderstanding or total ignorance of the world of work. Dropout rates are reaching alarming proportions. Thus, we find individuals graduating or leaving schools ill-equipped to cope with the complexities of a modern technological society.

Today, less than 20 percent of the secondary school population receive any kind of specific occupational training, while 80 percent of our youth do not graduate from college.²

²Bureau of Adult, Vocational and Technical Education, "Vocational Education for the 70's." Conference Discussion Paper. Washington, D. C.: U. S. Office of Education, Division of Vocational and Technical Education, March 1971, page 3.

During 1970-71, 3.7 million young people left formal education. Of these, nearly 2.5 million lacked skills adequate to enter the labor force at a level commensurate with their promise. Many left with no marketable skill whatever. Some 850,000 dropped out of elementary or secondary school; 750,000 graduated from the high school general curricula; 850,000 left college without a degree or completing an organized occupational program. These people represent an educational outlay of 28 billion dollars - about one-third of the amount spent on education in the country last year.³

At present, large numbers of high school and college graduates, as well as the recipients of doctoral and master's degrees, are unemployed, and everyone is asking why -- students, parents, employers, and policymakers, each with his own personal and institutional interests. Substantial portions of the population lack fulfillment in their work, locked into dead-end jobs or unaware of possible vertical and lateral career transitions. Their current state of incapacitation is compounded by the fact that the educational non-system is neither structured nor equipped to assist them. Our educational delivery system is fragmented, disjointed, and uncoordinated. It does not parallel the lifelong needs of people for career development.

In addition to problems associated with youth, society and the education profession must deal with problems common among adults. Men and women are faced with difficult problems in adjusting to, and preparing for the dual roles of family member and worker. We witness adults faced with mid-career decisions, career redirections and who have experienced an

³Speech by Sidney P. Marland, Jr., delivered at the Conference of Pennsylvania Personnel and Guidance Association. November 14-15, 1971, Pittsburgh, Pennsylvania.

erosion in their employment skills. These individuals' need for help in their future career planning and development is no less intense and the social, educational, and economic consequences of inaction is no less severe than with youth. Overlaying both these groups are the severe problems of the disadvantaged -- those who represent the failures of our present social systems.

At the same time, our position of leadership in the free world demands a strong economic base which, in turn, requires new skills and increased levels of efficiency and productivity if we are to survive in world competition. In these rigorous times of "global economics," accountability, performance contracting, program budgeting, and management by objectives, it is easy to forget that the individual is paramount in our free society -- that individual fulfillment is our guiding star. The problem, then, becomes one of balancing the requirements of society with essential freedom for individuals. When we consider the enormity of personal and social investments, the loss of self-esteem and self-confidence, the billions of educational dollars spent for inappropriate, non-relevant education, and the cost of remedial, correctional, and welfare programs, the implications for efficient human resource development and utilization are staggering.

In my judgment, there are no ready-made panaceas or shortcuts to resolving the educational implications of these complex problems. However, career education, growing out of a heightened social consciousness and the research tradition of career development fused with concepts of vocational education, vocational guidance, and manpower planning, appears to hold considerable promise as a new way of orienting and deploying our education resources. It provides a new, vigorous sense of purpose and mission for the school enterprise. Regardless of whether we educators are ready to

accept this new direction, legislative groups at the state and federal levels already have taken specific actions. In addition to the legislative ferment on the national scene, several state legislative groups have recently passed acts which are significant for career education. For example, Senate Bill 5(1971) in Arizona made available approximately two million dollars to initiate statewide activities in the career education field. The New Jersey State Legislature also has appropriated funds to finance pilot projects of career education. Three such projects were conducted with success during the 1970-71 school year. Last year the California State Legislature passed Assembly Bill 102 (1971), which states in part:

The Legislature hereby recognizes that the policy of the people of the state of California to provide an educational opportunity to every individual to the end that every student leaving school should be prepared to enter the world of work; that every student who graduates from any state-supported educational institution should have sufficient marketable skills for legitimate remunerative employment; and that every qualified and eligible adult citizen should be afforded an educational opportunity to become suitably employed in some remunerative field of employment.

State and local boards of education are evolving new position statements relative to the school's responsibilities for career education. The Los Angeles City Board of Education on October 28, 1971, adopted a position of providing career education for all youths and adults of the city schools, committing the school districts to:

Preventing as far as possible any student who is not prepared to enter the world of work from dropping out of high school, preparing each student who graduates with a salable skill for productive work, or with an academic background sufficient to successfully complete a college course, and offering every adult an educational opportunity which will ensure his appropriate employment.

Recently, the Education Commission of the States, headquartered in Denver, issued a report of its Task Force on Occupational Education in Post-Secondary Education entitled "Vocation as 'Calling'". This task force was chaired by Governor McNair of South Carolina and President James Hammond of Fitchburg State College in Massachusetts. Let me share with you the report's introductory paragraph.

If the ideal of education commensurate with the interests, needs and abilities of American citizens is to be approximated, and if that education is to have relevance to the skills, awareness, and concerns essential to a free, progressive and technically competent society in this last quarter of the Twentieth Century, it is essential that priorities be realigned and that we return to the concept of education as career preparation, of vocation in the classical sense of what a person does with his life, his 'calling.' This is not to disparage other conceptions of the aims of education including personal enlightenment, social development, adjustment, attainment of skills, or exploration of the realms of knowledge, but it is to give these focus.

Antecedents of Career Education

To the casual observer, career education may appear to be a totally new conceptual focus for American education which burst on the scene full-grown and received initial visibility and emphasis when U. S. Commissioner of Education Sidney P. Marland, Jr., issued his call for "Career Education Now" to the National Association of Secondary School Principals in Houston in January, 1971. It is not a totally new or revolutionary concept. Rather, it is the result of evolutionary development. Significant dimensions of the concept have historical roots deep in American thought and action. At least three major sources have contributed substantially to the evolution of career education as a major conceptual framework for American education. These three sources are (1) statements of the major goals of education enunciated by various groups, (2) educational

legislation reflecting society's collective intentions in this area, and (3) the accumulation of research findings concerning individual development.

Significant elements of the career education concept have been included and reemphasized in practically all of the major goal statements for American education.

"Vocation" was among the seven objectives listed in the 1918 publication by The Commission on Reorganization of Secondary Education entitled Cardinal Principles of Secondary Education. The commission wrote, "A good citizen earns his living and contributes to the general welfare by working, and maintains harmonious relationships with fellow workers."⁴ The Educational Policies Commission of the National Education Association of 1938 listed four current school objectives, third among them Economic efficiency; the school should produce an individual who selects his own vocation, understands and lives according to the requirements of his job, improves his working efficiency and plans his own economic life.⁵ The first of 10 imperative needs of youth, according to the Educational Policies Commission of 1944, was: "All youth need to develop salable skills and those understandings and attitudes that make the worker an intelligent and productive participant in economic life. To this end,

⁴National Education Association. Cardinal Principles of Secondary Education. Washington, D. C.: U. S. Department of the Interior, Bureau of Education, Bulletin No. 35, 1918.

⁵The Educational Policies Commission. Current School Objectives. Washington, D. C.: National Education Association, 1938.

most youth need supervised work experience as well as education in the skills and knowledge of their occupation."⁶

A statement by the Education Policies Commission of 1961, stated that the central purpose of education is the development of rational thinking but also reiterated the school's traditionally accepted obligation to teach the fundamental processes:

More than ever before, and for an ever-increasing proportion of the population, vocational competence requires developed rational capacities. The march of technology and science in the modern society progressively eliminates the positions open to low-level talents. The man able to use only his hands is at a growing disadvantage as compared with the man who can also use his head. Today even the simplest use of hands is coming to require the simultaneous employment of the mind.⁷

While strands of career development have been included in earlier statements of educational purpose, it should be emphasized that career education is not more of the same. It is not a synonym for vocational education. It is not a reiteration of traditional and good educational goals. It retains the essentials of education but introduces a new sense of focus and purposefulness -- career development. It places career development as the central, unifying element for education.

Practically every dimension of career education has been advocated at some earlier point in American education, although they have not been totally operationalized, tested and/or practiced. What is new is the cumulative effect of the interactions of all these various dimensions to the bold and encompassing concept of career education for all.

⁶The Educational Policies Commission. Education for All American Youth. Washington, D. C.: National Education Association, 1944.

⁷The Educational Policies Commission. The Central Purpose of American Education. Washington, D. C.: National Education Association, 1961.

In addition to statements of educational purpose articulated by various elements of the educational profession and other responsible groups, American education has also been influenced in a major way through federal legislation. The Morrill Act, which established the land grant college systems, the Smith-Hughes Act, which is the National Organic Act for Vocational Education (later supplemented and refined by the George-Deen, George-Reed, George-Ellzey and George-Barden Acts), and the National Vocational Education Act of 1963 and its 1968 amendments have all contributed materially to extending and strengthening the concept of career development. The National Defense Education Act of 1958 and its subsequent amendments placed increased emphasis on counseling and guidance at all levels and thus provided additional momentum toward the conceptual integration of various elements of career education.

While it is not generally recognized, the 1968 vocational Education Amendments provided many of the structural elements for career education. They reflected an expanded concept of guidance and counseling to include services which facilitate job selection and placement, reemphasized the need for pre-vocational activity extending into the elementary school, and reasserted the importance of developing new career programs and residential schools. Stress is placed on programs for special needs groups, particularly the disadvantaged and physically handicapped. New initiatives are placed behind cooperative programs and work study programs.

A third source of influence in the evolution of career education has been the growing body of knowledge accumulating from research and

development efforts in several fields such as vocational guidance, career development, manpower economics and vocational education. Career development has provided the major organizing construct for career education. While no single career development theory has total acceptance, there are several theories which combine to explain much about the attitudes, knowledge, and skills which facilitate or inhibit career development. Budke has treated these and related theories in a thorough fashion in his recent Review and Synthesis of Information on Occupational Exploration.⁸

The many theories of how occupational choice occurs have been classified as trait-factor theories, sociological theories, personality theories, and developmental theories.

Trait-Factor Theories

The trait-factor theory views occupational choice as a point-in-time act consisting of matching the individual's aptitudes, interests, and ambitions with occupational opportunities. Satisfaction with the choice depends primarily on the accuracy of the individual assessment and the occupational opportunities available.

⁸Wesley E. Budke, Review and Synthesis of Information on Occupational Exploration. Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, The Ohio State University, June, 1971.

Sociological Theories

The sociological approach to career development has as its central point the notion that circumstances beyond the control of the individual contribute significantly to the career choices he makes, and the principal task confronting the youth is the development of techniques to cope effectively with his environment. This approach assumes that individuals are placed in a particular environmental situation from accident of birth rather than from their willful desire. Their impressions of desirable jobs reflect their exposure to occupations in a particular social class.

Personality Theories

Personality theories of career development are based upon the hypothesis that differences in personality structures reflect different personal needs, the satisfaction of which is sought in occupational choices. Thus, different career areas are populated by persons of different need or personality type which has lead persons such as Holland⁹ to classify them into groups, such as realistic, intellectual, social, conventional, enterprising and artistic.

Developmental or Self-Concept Theories

The developmental or self-concept theories see occupational choice as the process of self-concept development through compromise choices and adjustments. Individuals develop more clearly defined self-concepts as they grow older, developing images of the occupational world which they

⁹John L. Holland, The Psychology of Vocational Choice.
Waltham, Massachusetts: Blaisdell Publishing Co., 1966.

compare with their self-image in trying to make career decisions. The adequacy of the eventual career decision is based on the similarity between an individual's self-concept and the vocational concept of the career he eventually chooses.

Unified and Composite Theories

Unified theories of career development are efforts by individuals to identify commonalities of the trait-factor, sociological, personality, and developmental or self-concept approaches. Composite theories address themselves to the conflict among the various classifications of theories and suggest the possibility that there may be some truth in all of them. One theory may satisfactorily explain the behavior of one person but not another.

Recent writings and research favor the developmental or self-concept approach to career development as the most appropriate for educational efforts. This theory implies a series of compromise choices and adjustments as young people pass through the occupational decision-making periods of fantasy choice, tentative choice, and realistic choice. The developmental approach to career choice consists of a logical and systematic process which can be incorporated into a comprehensive educational program. This theory is reflected in the school-based career education model by the use of awareness, orientation, exploration, and preparation stages of program emphasis. Educators are proceeding on the assumption that the individual has control over his occupational choice if he is provided with the occupational information and experiences upon which to base the decision.

What is Career Education?

Probably the most accurate and honest statement to be made at this time is that, in a finite sense, career education remains yet to be precisely defined. Although Commissioner of Education Marland and other educational leaders have given considerable attention to this "movement," it is not yet guided by a universally accepted definition. In fact, the strategy is to leave the matter of precise definition open to as much dialogue and interaction as possible. The U.S. Office of Education has funded 16 regional meetings to bring together leaders from business, industry, education, and community groups to discuss career education and its implications. One of these meetings will be in Portland on April 12-13. Commissioner Marland has indicated that, "Career education cannot be defined solely in Washington. Revolution doesn't happen because government suggests it. We can ask many of the questions, we can help with funds, but if career education is to be the revolutionary instrument that the times demand, it will be defined in hard and urgent debate across the land by teachers, laymen, students, and administrators in months to come. Let that debate start now."¹⁰

From a personal sense, career education introduces a new polarity and sense of purpose into education. I view it as the new paradigm for education, focusing on career development. Career education considers curriculum to be systemic - an integrated and cumulative series of experiences designed to help each student achieve (1) increased power to make relevant decisions about his life and (2) increased skill in the performance of all

¹⁰Career Education. U. S. Government Printing Office, Washington, D.C., 1971, 0-449-190.

his life roles. Specifically, then, career education is designed to capacitate individuals for their several life roles: economic, community, home, avocational, religious, and esthetic. It recognizes the centrality of careers in shaping our lives by determining or limiting where we work, where we live, our associates, and other dimensions that are significant in defining our life style. Career education should not be viewed as another "add on" -- it is not incremental or cross sectional, it represents an infusion throughout the curriculum -- it calls for a restructuring and reorienting of the total educational program. Career education, then, should be viewed as lifelong and pervasive, permeating the entire school program and even extending beyond it. It is designed for all students.

Career education is a systematic attempt to increase the career options available to individuals and to facilitate more rational and valid career planning and preparation. Through a wide range of school and community-based resources, young people's career horizons should be broadened. Their self-awareness should be enhanced. Career choice and preparation should be explicit -- not accidental, fortuitous, or circumstantial -- through an increased understanding of self and career options and their implications to their career exploration. In a macro sense, and in harmony with developmental theory, career education could be viewed at five general levels. Level one is the pre-school through grade six in which all young people, through their regular classroom activities, will have an opportunity to learn about the world of work,

the man-made environment, technology, and begin to understand and appreciate the dignity of work and the social contributions made by various occupational groups and professions. No emphasis of any kind is placed on salable skills or specific job selection or career selection. The emphasis is on broad career awareness and orientation.

The second level is the middle grades and in some cases may extend as high as the tenth grade. Here all young people, boys and girls, rich and poor, urban and rural, will have an opportunity to systematically explore occupational options. They will proceed from broad exploration to in-depth experience with hands-on, real life activities in major occupational clusters. Such experiences should contribute to a further understanding of their occupational interests and the implications of alternative career choices for their total life style -- in effect, their "non-work" life roles.

The third general level of career education is the senior high school level, grades 10 through 12, where the major emphasis is on narrowing choices and initial vocational preparation. This is the area where we must continue to emphasize the development of salable skills, expanding and broadening good occupational programs. Some students will complete our initial vocational preparation and enter careers of their choice. Other students in the high school will further refine their career choice through additional exploration and learning experiences essential for post-secondary occupational and professional programs. At level three it is imperative that every high school in the nation become a placement

agency. The National Advisory Council on Vocational Education has called for every American school to employ full-time placement coordinators. We need to spend as much time and resources at the high school level in aiding young people secure full-time and part-time jobs as is now spent in getting them into college.

On March 3, 1972, the President's Commission on School Finance submitted a report to President Nixon which stated:

The Commission recommends that career education be given priority and status at least equal to that now accorded to college preparation and that Federal, State and Local governments and their education agencies take vigorous policy and financial steps in this direction.¹¹

The fourth general level is the post-secondary. Here community colleges, technical institutes, colleges and universities are instrumentalities for providing additional career education options. These options should relate not only to preparing individuals for initial employment but should also provide programs designed to assist individuals progress in their chosen career line or elect new options.

The fifth level of career education is continuing education. The concern here is two fold: assisting individuals' career advancement and progression -- making the career ladder work, and aiding in mid-career redirection by assisting adults to re-think and prepare for new careers. I should point out that at every one of these levels there needs to be an improved career guidance and counseling service.

¹¹The President's Commission on School Finance, Schools, People and Money, U. S. Government Printing Office, 1972.

The educational program should be sequenced and postured to optimize career development and should provide as broad a base of understanding of self and the world of work as possible. It should be designed so youngsters will, in fact, have two options at several levels; continuing education or employment. Career education provides these options and is designed to strengthen and achieve student self-actualization. It captures and builds on the strong motivating force of career interest, career development and preparation. It provides a means of making other elements of the school relevant to life purposes and stimulates student interest and participation in the whole school enterprise. Subject matter is not an end, but rather a means of helping individuals optimize their career development. Knowledge is viewed as applicative; not merely descriptive. In the vernacular of the day, career education "puts it all together."

The Career Education Models

What is being done to further refine and help develop career education concepts? Many school districts are already well underway in implementing them. The U. S. Office of Education's research and development initiatives to facilitate career education are substantial and yet varied. They should ultimately make an empirical contribution to shaping and further defining career education. The federal government has already made available more than 86 million dollars through a variety of programs for research, development, and the implementation of career education concepts.

There now exist four alternative conceptualizations of career education or, more accurately, four alternative ways of delivering or facilitating career education goals. In a research and development sense, the four models may be viewed as alternative means of delivering on our career education commitments. The four models are:

1. Comprehensive Career Education Model - the school-based model
2. The employer-based model
3. The home-based model, and
4. The residential-based model.

The School-Based Model

The U. S. Office of Education has designated The Center for Vocational and Technical Education, located at The Ohio State University, as the prime contractor to develop, test, and install the school-based Comprehensive Career Education Model. The model is being developed in six local school districts selected by the Office of Education. They are: Mesa, Arizona; Los Angeles, California; Jefferson County, Colorado; Atlanta, Georgia; Pontiac, Michigan and Hackensack, New Jersey. The development network encompasses many diversities. There are variations in the size of school districts, geographic settings, and the cultural and ethnic mix. The network involves the staff and students from 112 school buildings as more than 3,900 teachers and administrators work with 83,300 students in this development effort.

The current objective of the CCE model is to develop and test a career education system (K-12) in these districts. Present funding

limits development to K-12; however, we are planning to begin development of 13- and 14-year programs in at least one site this fall.

As the prime contractor for the CCE model, we are obligated to have programs "up and running" in the six sites starting September, 1972. The general project strategy is to further refine and operationally define in terms of student outcomes the conceptualization of the school-based model. The conceptualization views the school enterprise K-12 as an integrated whole - concerned with optimizing individual career development and concurrently enhancing knowledge of self and self-actualization. Again, let me emphasize we are concerned with capacitating individuals for all life roles.

The school program could be viewed as facilitating individual progress through career awareness, orientation, exploration, and preparation. There will be opportunities for individuals to recycle -- to refocus career goals based on exploration and increase knowledge of self.

At the present stage of development (1st cut) we have identified 8 major elements of career education which extend vertically through the grades (matrix). These have been fractionated into 32 supporting themes from which there have been established 1,477 goals.

Approximately 3,000 student performance objectives have been written to attain the goals which support the themes which hopefully will allow us to deliver on the eight basic program elements.

Please understand that the 3,000 student performance objectives do not represent the total curriculum. Current objectives in math, science, and language arts, for example, are still viable. The performance objectives in careers are designed to introduce polarity toward career development throughout the school program.

The 8 basic elements are:

1. Self Awareness → Self Identity
2. Educational Awareness → Educational Identity
3. Career Awareness → Career Identity
4. Economic Awareness → Economic Understandings
5. Appreciations, Attitudes → Self → Social Fulfillment
6. Decision-Making Skills → Career Decisions
7. Skill Awareness and Beginning Competence → Employment Skills
8. Employability Skills → Career Placement

Concurrently with matrix building, a national inventory of materials and programs (treatments) has been undertaken which produces the prescribed outcomes and is congruent with the model. Simultaneously, a diagnosis will be made of programs in the six site schools to determine what portions of the models are already in place and operating. Prescriptive treatments will be formulated, carefully evaluated against desired outcomes, and recycled if necessary. The iterative cycle of diagnosis, prescription, treatment, assessment, accepting, rejecting, and recycling is the central project strategy. We now have 140 treatment units undergoing development and testing in the network. Concurrently, bench mark data to establish the present state of affairs -- student, school and community -- is being

assembled and analyzed. A contract has been let with The Institute for Educational Development, an affiliate of the Educational Testing Service at Princeton, to serve as an outside summative evaluator to complement and reinforce the formative evaluative capacity of the project staff and to assess the prime contractor. Extensive staff development programs will be initiated in the six cooperating school districts before September. Full-time interdisciplinary development teams employed in the participating schools under the project and from The Center are at work in the six cooperating school districts. A central planning, management, and consulting staff is headquartered at The Center. Extensive involvement of school and community personnel characterizes the development process. A more long-term research and development program will be evolved to work toward a totally integrated and valid model.

This joint effort of a national research and development Center and six LEA's operating in a consortium should not be viewed as just another curriculum development program, but rather as a systematic research and product engineering effort.

In addition to our responsibilities as prime contractor for the school-based model, The Center in cooperation with University Council for Educational Administration and the College of Education, The Ohio State University, is also conducting a National Conference for Deans of Colleges of Education. The purpose of this conference is to further acquaint deans with the emerging concepts of career education for the various functions of colleges of education. This conference which is to be held in April is to be followed by a May Conference for Professors of Educational

Administration, designed to aid them in their work on career education with school administrators. These two conferences are forerunners to a series of 10 regional conferences which are beamed at faculty teams. Primary purpose of the regional conferences is to consider needed modifications and redirections across departments and functions of colleges of education to optimize their work in career education. Additionally, The Center, in consort with the University Council for Educational Administration, is organizing a joint task-force to study the problems of educational administration preparation, particularly as it relates to career education and occupational education elements. This commission will be appointed within the next few weeks and will begin its work soon. Their activity, hopefully, will have long-term implications for pre- and in-service programs for educational administration personnel.

The Employer-Based Model

The goals of the employer-based model are (1) to provide an alter-native educational program for students, aged 13-18, in an employer-based setting, (2) to unify the positive elements of academic, general, and vocational curricula into a comprehensive career education program, (3) to increase the relevance of education to the world of work, and (4) to broaden the base of community participation, particularly by involving public and private employers more directly and significantly in education.

The model has the capability of operating on a year-round basis, and will provide for open entrance and exit of students.

It is anticipated that the program will be operated by a consortia of public and private employers. Each consortium will encourage the

assistance and active support of such diverse community elements as unions, schools, parents, PTA's, and chambers of commerce. The program will emphasize educational experiences that take place in a variety of settings such as laboratories, production lines, parks, museums, hospitals, and construction sites. The aim is to make the community the classroom. Guidance counselors and prospective employers will, together with each student, plan a learning program consistent with individual interests and objectives. Planning studies are under way at the Far West Laboratory For Educational Research and Development, Berkeley, California, at the Northwest Regional Educational Laboratory, Portland, Oregon; and Research for Better Schools, Philadelphia, Pennsylvania. Experimental classes will begin this Fall for 50-100 students in Oakland, California, Tigard, Oregon, Oregon and in Philadelphia, Pennsylvania.

The Home-Based Model

The purposes of the home-based model for career education are (1) to develop educational delivery systems into the home and the community, (2) to provide new career education programs for adults, (3) to establish a guidance and career placement system to assist individuals in occupational and related life roles, (4) to develop more competent workers, and (5) to enhance the quality of the home as a learning center. Much of the emphasis of this model will be placed on individualized learning. The career development centers in the community will provide tutorial, testing, and placement services aimed at identifying and developing career interests.

The Educational Development Corporation in Newton, Massachusetts, is conducting studies in three major areas: in-depth definition of population characteristics appropriate for a career education TV series, development of an evaluation plan for the series, and conceptualization and feasibility studies of supporting components for career guidance and in-home study. The Rand Corporation is completing an analysis of successful media-based educational programs so that the Office of Education can develop a prototype for the implementation of the model.

The Residential-Based Model

The Mountain Plains Regional Education Center, recently established at the Glasgow, Montana, Air Force Base, will develop and begin to implement a resident career education program with services to disadvantaged individuals and families drawn from rural areas of six participating states trying to develop their economies. Program components in the residential-based model will include education, family life and community services, health and health services, economic development services, and research and evaluation activities.

Entire family units and individuals are now reporting to the training site so that each family member can develop an appropriate career role through employment, study, home management, or through a combination of these. Employment upon completion of the residency is guaranteed by the home state of each family. Experiences in developing and operating the Glasgow Center will be utilized in assessing the potential for other kinds of institution-based career education programs.

Implications of the Alternative Career Education Models

It is difficult, if not impossible, to assess the full range of implications for each of these models, let alone the synergism among them. However, the future implications of a successful school-based comprehensive career education model are significantly magnified when considered in relation to the other three. In my judgment, all models are related to the school model. As previously indicated, career education incorporates a concept of an individual's lifelong entitlement to the educational opportunities required for career selection, preparation, and advancement. The school-based model may be viewed as the formative developmental program provided for all children and youth. The other models extend the concept beyond the formal school and provide educational opportunities for individuals through all of the successive stages of their lives. When fully developed and articulated, the various models will provide a variety of options for individuals who, for one reason or another, need to recycle their career activities, or who desire to advance in their career goals.

As now conceived, the models should provide opportunities for career development and preparation for any person, regardless of his age, regardless of the circumstances under which he must work and live, and regardless of the social or physical barriers he might face.

IMPLICATIONS FOR EDUCATIONAL LEADERSHIP

The successful development of effective programs of career education depend in large measure on the quality of leadership. You hold the key to developments of this critical priority in your communities. As school executives, you have many factors to consider in undertaking any major development or redirection in the school enterprise. Typically, the number of factors to consider and their potential consequences relate directly to the degree of change, the number of individuals and roles affected, and the perceived relative advantage of the change, to name a few. Career education is massive in its total implications. In thinking through the possibilities of career education for your school, I would like to mention several considerations. Many are self-evident but, because of their importance, need emphasis. They are both process and substantive in nature. That is, some apply to the introduction of any major innovation, and others relate directly, or even uniquely, to the installation of a career education program. Like Caesar in battle, we need to undertake several of these elements at the same time.

1. Determine the Knowledge and Beliefs of Key Community Groups Concerning Career Education

Attitudes based on knowledge of educational programs on the part of all groups in the community--school board, advisory committee members, parents and students--serve as key determinants of the nature and quality of educational programs. If misunderstandings and/or negative attitudes exist, effective steps must be taken to develop understanding of career education, its purposes and implications for all age groups. One of the inescapable obli-

gations of educational leadership is that of broadening the educational horizons and aspirations of the community. Career education provides a viable vehicle for relating to many diverse community groups and interests. Instruments and procedures should be developed to determine perceptions and attitudes of key groups and individuals toward career education. Assessment of such public opinion will provide educational planners with a reference point for initiating community education programs and redirecting current educational offerings.

2. Determine the State of Readiness of the Educational Staff to Provide Leadership in Career Education

We should assess the attitudes and readiness of the educational staff, administrators, teachers, counselors, and paraprofessionals to undertake career education. It is axiomatic that implementation of new programs and innovations is enhanced when it has the active acceptance and support of a professional staff. Experience has indicated that many innovations fail not from lack of support or active opposition of the staff but from their inability to implement such programs.

Historically, educators have been committed to preparing students for their next educational step. Career education imposes a dual responsibility of preparing individuals not only for further education but also for employment. Determining the state of readiness and proficiency of the staff will provide a logical take-off point for staff development programs.

3. Exploit the Knowledge Base Which Supports Career Education

Information on career education should be gleaned from all sources, thus allowing planning and development to build on earlier efforts. A critical review should be made of the knowledge base available through ERIC: Research in Education, Current Index to Journals in Education, Abstracts of

Instructional Materials in Vocational and Technical Education (AIM), and Abstracts of Research and Related Materials in Vocational and Technical Education (ARM). Become acquainted with the "state of the art" papers, such as the review and synthesis papers published by the ERIC Clearinghouse on Vocational and Technical Education, e.g., Herr's, Review and Synthesis of Foundations of Career Education, and Budke's, Review and Synthesis of Information on Occupational Exploration. The products of the national R & D centers, regional labs, and State Research Coordination Units will also be helpful. In many instances, it will be possible for you to extrapolate or apply findings and instructional products of these agencies to your own setting.

4. Visit Ongoing Programs

Early provisions should be made to include site visits for educational staff and board members to observe successful career education components operating in other districts. The career education concept has been implemented by a number of school districts, varying in size, geographical location, grade levels and nature of program.

5. Secure Board Action on Career Education and Establish Long-Range Program

Goals

Recognizing that the installation of a total comprehensive career education program represents a substantial long-range commitment on the part of the community; it, therefore should be an explicit decision of the board. The decision should represent a clear commitment that is understood by all elements of the community.

Specific career education program goals, measureable in terms of student outcomes, should be developed. These goals should be both annual and projected, challenging yet realistic, and based on sound principles of learning and career development theory. In the development of goals, planners need to consider curriculum, personnel, finance, community aspirations, and labor market trends, since all of these interact on program goals and student outcomes. Program priorities need to be established to secure a deliberate, systematic, incremental installation of the comprehensive career education system.

6. Assess Congruence of Current Programs to Career Education Goals

Existing educational programs should be examined in terms of their positive contribution to the district's current and long range comprehensive career education goals. Relevant segments of the program should be retained and a restructuring process initiated to assure an educational program focused on helping the individual achieve his self-established career goals. Under such a program, the historical "general track" would be eliminated and the academic, vocational, and student personnel services fused into an integrated comprehensive career education program. Voids in the delivery system should be identified and priorities established for developing new instructional materials or infusing current content areas with career development concepts. The con-

gruence of existing vocational preparation programs to labor market projections should be determined.

7. Involve the Community in Developing Career Education

Since the responsibility of providing relevant career education is a function of both the school and the community, the educational staff, parents, students, employers, and community leaders should cooperatively plan the career education program. Further, the actual conduct of the program will require significant input, cooperation, and activity on the part of community personnel. Schools need to be viewed as the planner and manager of the educational growth of individuals, drawing on and utilizing the full range of societal resources that are available by making extensive use of the educative capacities of the community. These include resource personnel, lay career advisors, teacher aids, and others. Surely we can think of numerous other ways we can effect a more optimal interface and reestablish the sense of "community" in an educational context.

8. Assess Alternative Delivery Systems

The organizational implications of alternative delivery systems to achieve the goals of career education must be considered early by school district planners. Specific elements to examine include requirements for: school organization, administrative structure, policies and procedures, staff assignments, program relationships, articulations, and projected financial costs. Other related factors such as the 12-month school year, its implications for labor market entry and effective building and equipment utilization also should be considered.

Staffing poses the greatest problem to educational planners when they consider major change. "School systems are relative newcomers to the itin-

erant specialist at the top management levels. Personnel policies and procedures are geared to the more stable, "up the system" type of administrative advancement. Whereas in the past only the superintendent may have been selected from outside the system, the trend will include many other types of specialists (at the management level) which highly sophisticated programs like career education will demand in the future."¹² The development of effective "temporary" staff patterns for school systems may be necessary to effect the rapid change which career education and the society demand.

9. Initiate Staff Development Programs

Staff development strategies must be developed which selectively prepare staff for their roles in implementing career education. All school personnel are affected and will need to be made thoroughly aware of their roles and prepared to implement them.

The first step is to identify a highly competent and progressive individual as director of career education to provide system-wide leadership. His role and relationships should be clear. This is a critical appointment. Ideally, the individual should understand occupational programs, career development theory, and the interrelationships of the various subject matter areas and their contribution to the cumulative development of individuals for careers. It will require a person of breadth, vision, drive, and ambition, perhaps a new breed.

¹²George N. Smith, Problems in the Organization and Administration of Career Education Programs. Speech prepared for the National Conference on Career Education for Professors of Educational Administration, May 7-9, 1972, Columbus, Ohio, page 12.

The in-service career education program should accomplish four specific tasks:¹³

1. Provide everyone with a general orientation to the philosophy and basic concepts of career education.
2. Prepare selected staff members for modifying and developing instructional units.
3. Prepare selected staff members, counselors, and teachers for testing and evaluating units that have been developed.
4. Prepare teachers and counselors at different grade levels and various subject areas to implement the appropriate curriculum and guidance units.

Consultive personnel should be provided to these staff groups in developing the in-service education program. The relationship between current innovations, such as individualized instruction, the open school, and differentiated staffing, should be made explicit. Additionally, the district should develop and operate a leadership program for school board members, administrators, and other policy makers to enable them to become thoroughly familiar with the historical, theoretical, and philosophical backgrounds of career education as well as with the operational nature of the program. This should provide them with the background needed to provide intellectual leadership and make appropriate policy decisions.

10. Establish Instructional Materials Development Teams

Provisions should be made for development teams of staff to focus on the priority items identified in the inventory and assessment of the school's current instructional system. In some instances, teams will need to represent different subject areas. Time and resources will be needed. Consultative services from non-district personnel would be helpful. Through The Center,

¹³In-Service Education Guidelines for Comprehensive Career Education.
Columbus, Ohio: Center for Vocational and Technical Education, The Ohio State University, unpublished, page 2.

continuing surveillance will be maintained for new instructional materials that are developed in career education. These will be brought under bibliographic control and entered into the ERIC system through our clearinghouse as soon as possible. Items will be announced in the various ERIC documents such as RIE and AIM. Developmental teams should monitor these major sources.

11. Review Manpower Projections

Current and projected manpower needs and job requirements should be established and made available to planning personnel. More realistic career program planning can be projected on the basis of employment data. Occupational information is needed by students in career planning.

12. Expand Cooperative Education

The involvement of industry and business in the education process, through establishment and expansion of cooperative education programs, provides school programs with the opportunity to utilize more of the community's economic, physical, cultural and human resources. The increasing cost of equipment and facilities and the scarcity of qualified occupational education instructors make it imperative that maximum use be made of all community resources to offer a wider variety of career options. Close ties with business and industry allow school planners to direct their programs to actual employment conditions, facilitate placement, and improve school-community ties. Care must be taken to insure that the job preparation experiences are realistic and properly coordinated with related course work which is conducted by the school.

Administrators will be interested in The Center's series of publications on cooperative education. They are listed in the appendices.

13. Provide Continuing Career Education

Post-secondary and adult education should be available to individuals throughout their working life.

Swanson believes that public schools "cannot accept the obligations or career (education) without expanding programs, particularly in training for job-entry skills and in adult education."¹⁴ With the rapid assimilation of scientific findings into technologies, the number of people displaced through technological advancement is increasing.

Thus, school systems as well as government and industrial concerns must plan for retraining these individuals and provide necessary funds and facilities to accomplish it. Career education based on job clusters provides a reliable means of more effectively preparing students for families of occupations, thus lessening the detrimental effects of employment, resulting from economic growth and technological displacement. Therefore, retraining requirements should be reduced, but where necessary the broader background and base of understanding acquired through career education should facilitate retraining. Community support for the total school program should be enhanced through citizen participation in continuing career education.

14. Initiate an Active Community Information Program

The goal of the community information program should be to establish and develop community support for career education based on understanding. It is essential that every school district establish strong continuing community information programs which actively involve employers, news media, and community groups in developing a community-wide awareness and acceptance of career education. Current misconceptions of occupational education can be reduced by recognizing the occupational success and achievement of students in the career education program. Potential benefits from an effective program should include greater employer participation in school planning and development, up-to-date occupational programs, higher placement rates of graduates and

¹⁴Gordon I. Swanson. "Concepts in Career Education." Paper presented to AVA Task Force on Career Education, Portland, Oregon, December 2, 1971.

improved community support of the total educational program.

15. Establish Career Education Advisory Councils

In establishing programs as complex as career education, the development of advisory councils is a high priority. These advisory councils typically consist of representatives from employer, labor, parents, students, and various governmental agencies. Depending on the size of the district and the career education program, it may be desirable to establish one general advisory council and/or several advisory committees serving specific career cluster areas.

Advisory councils serve school districts in a number of valuable ways:¹⁵

(1) render advice on curriculum content, (2) advise concerning the kinds of facilities and equipment needed for appropriate training within a particular career cluster; (3) help to provide for field trips and cooperative education work stations in specific career cluster areas; (4) help to insure appropriate placement of existing students who have been preparing for careers in the various career cluster areas.

16. Operate a Job Placement Service

Schools should initiate an active and well staffed placement service which provides for student counseling, career planning, job-entry placement and part-time employment. There should be a constant effort to place all students either in a job or in further education when they exit from the school system. The types of programs which are and can be successfully centered in such a placement facility include: work experience programs, cooperative education, volunteer youth programs, and Neighborhood Youth Corps programs.¹⁶

¹⁵Sidney High, Career Education. Conference paper, U.S. Office of Education, Washington, D.C., unpublished, page 21.

¹⁶Grant Venn, "3 Ways to Improve Occupational Programs," Nation's Schools, December, 1971.

The public often judges the effectiveness of educational programs largely on the placement aspect of their operation.

17. Maintain an Effective Evaluation Capacity

Continual assessment of the career education program in relation to established objectives must be secured through appropriate evaluation techniques. A key element in the evaluation system is an effective follow up procedure to maintain contact with and secure feedback from former students.

Administrators will be interested in reviewing The Center publications on placement and follow up and program evaluation. These are listed in the appendices.

SUMMARY

In summary, the needs for career education are urgent and obvious. In my judgment career education builds on a sound philosophical and theoretical framework. In the broader context, it may well provide the vehicle for revitalizing the American educational enterprise and reestablishing its relevance and credibility with society.

To be sure, there are many unresolved issues and questions in its implementation. However, we need to face them. With respect to resources, we must find ways to reallocate and reestablish priorities within our educational budgets. Further, if career education is successful in delivering on its promise, we can look to diverting resources from present investments in programs of unemployment, welfare, and correction.

Many career education goals can be attained by changed attitudes in educational personnel, thereby injecting new polarity, purpose, and commitment. Recognizing its stage of development, career education should be viewed as a pervasive and evolving concept. It is difficult, if not impossible at this time, to explicate the whole range of interactions and implications

inherent in the full implementation of the concept. However, it is accurate to state that it is too big and powerful an idea to go away. As educators, as citizens, we must confront it, think it through, consider it, shape it, and evaluate it so that career education can more effectively keep its promise of fully capacitating individuals for their multiple life roles.

BIBLIOGRAPHY

- Budke, Wesley E., Review and Synthesis of Information on Occupational Exploration. Columbus, Ohio: EPIC Clearinghouse on Vocational and Technical Education, The Ohio State University, June 1971.
- Bureau of Adult, Vocational and Technical Education, "Vocational Education for the 70's." Conference discussion paper. Washington, D.C.: U.S. Office of Education, Division of Vocational and Technical Education, March, 1971.
- Career Education. U.S. Government Printing Office, Washington, D.C. 1971.
- High, Sidney. "Career Education." Conference paper, U.S. Office of Education, Washington, D.C., unpublished.
- Holland, John L. The Psychology of Vocational Choice. Waltham, Massachusetts: Blaisell Publishing Co., 1966.
- In Service Education Guidelines for Comprehensive Career Education. Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University, unpublished.
- Marland, Sidney, P. Jr. "Career Education - A New Frontier", Presented at the Conference of Pennsylvania Personnel and Guidance Association. November 14-15, 1971, Pittsburgh, Pennsylvania.
- National Education Association. Cardinal Principles of Secondary Education. Washington, D.C.: U.S. Department of the Interior, Bureau of Education, Bulletin No. 35, 1918.
- The Educational Policies Commission. The Central Purpose of American Education. Washington, D.C.: National Education Association, 1961.
- The Educational Policies Commission. Education for All American Youth. Washington, D. C.: National Education Association, 1944.

- The Educational Policies Commission. Current School Objectives. Washington, D.C. National Education Association, 1938
- The President's Commission on School Finance. Schools, People and Money, U.S. Government Printing Office, 1972.
- Smith, George N., Problems in the Organization and Administration of Career Education Programs. Speech prepared for the National Conference on Career Education for Professors of Educational Administration, May 7-9, 1972. Columbus, Ohio.
- Swanson, Gordon I., "Concepts in Career Education." Paper presented to AVA Task Force on Career Education, Portland, Oregon, December 2, 1971.
- Venn, Grant, "13 Ways to Improve Occupational Programs," Nation's Schools, December, 1971
- "Where the Action Is." Nation's Schools, December, 1971.

SELECTED REFERENCES FOR CAREER EDUCATION

CAREER EDUCATION

Budke, Wesley E. Review and Synthesis of Information on Occupational Exploration, Information Series 34. Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University. 1971. 93 pp. (ED 056 165 MF \$0.65 HC \$3.29)

Bottoms, Gene, and Matheny, Kenneth B. A Guide for the Development, Implementation, and Administration of Exemplary Programs and Projects in Vocational Education. Atlanta, Georgia: Georgia State Department of Education, September, 1969. 42 pp. (ED 040 301 MF \$0.65 HC \$3.29).

Especially see Herr's paper, "Unifying An Entire System of Education Around a Career Development Theme." Also, Gysber's paper, "Elements of a Model for Promoting Career Development in Elementary and Junior High School."

Career Education. Washington, D.C.: U.S. Government Printing Office. 1971. 16 pp. pamphlet. (Order No. HE 5.280:80075, 20 cents)

Goldhammer, Keith and Taylor, Robert E. Career Education: Perspectives and Promise, Charles E. Merrill Publishing Company, 1300 Alum Creek Drive, Columbus, Ohio. At press. Available June 1, 1972.

Herr, Edwin L. Review and Synthesis of Foundations for Career Education, Series 61. The Center for Vocational and Technical Education, Columbus, Ohio. The Ohio State University. 1972 82 pp. (VT 014 805)

Law, Gordon, F. (ed.) Contemporary Concepts in Vocational Education. The First Yearbook of the American Vocational Association. Washington, D.C.: The American Vocational Association, Inc. 1510 H Street, N.W., 1971. 435 pp.

Lee, Sylvia L. and others. High School Senior Girls and the World of Work: Occupational Knowledge, Attitudes and Plans. January, 1971, 56 pp. Information Series

"Marland on Career Education." Reprinted from American Education . (November, 1971). Washington, D.C.: U.S. Government Printing Office. (available as HE 5.280: 80076, 10 cents.)

Marland, Sidney P., Jr. "Career Education: More Than a Name." Speech delivered before Annual Meeting of the State Directors of Vocational Education, Washington, D.C., May, 1971. 14 pp. (ED 050 295 MF \$.65 HC \$3.29).

PLACEMENT AND FOLLOW UP

Campbell, Robert E., and Vetter, Louise. Career Guidance: An Overview of Alternative Approaches. Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University, August, 1971. 29 pp. (VT 013 479. See March 1972 RIE)

_____. The Systems Approach: An Emerging Behavioral Model for Vocational Guidance. Research and Development 45. Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University, 1971. 33 pp. (ED 047 127 MF \$0.65 HC \$3.29)

Hansen, Lorraine S., et al. Career Guidance Practices in School and Community. Ann Arbor, Michigan: ERIC Clearinghouse on Counseling and Personnel Services, 1970. 200 pp. (ED 037 595 MF \$0.65 HC \$6.58)

Little, J. Kenneth. Review and Synthesis of Research on the Placement and Followings of Vocational Education Students. Columbus, Ohio: The Center for Vocational and Technical Education. The Ohio State University. Feb., 1970 48 pp. (ED 037 543 MF \$0.65 HC \$3.29)

Rhodes, James A. Vocational Education and Guidance: A System for the Seventies. Columbus, Ohio: Charles E. Merrill Publishing Company. 1970.

Starr, Harold, et al. A System for State Evaluation of Vocational Education. Final Report. Col., Ohio. The Center for Vocational and Technical Education. The Ohio State University, May, 1970. 185 pp. (ED 041 121 MF \$0.65 HC \$6.58). This publication contains instruments and materials for follow up of students.

COOPERATIVE EDUCATION

McCracken, J. David. "Work Experience for Broadening Occupational Offerings: A Selected Bibliography for Use in Program Development." Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, The Ohio State University. November, 1969. 16 pp. (ED 034 062 MF \$0.65 HC \$3.29).

Butler, Roy L., and York, Edwin G. What School Administrators Should Know about Cooperative Vocational Education. Information Series No. 37. Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University.

_____. What Teacher-Coordinators Should Know About Cooperative Vocational Education. Information Series No. 36. Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University. August, 1971. (VT 012 905, see May 1972 RIE).

Wallace, Harold R. Review and Synthesis of Research on Cooperative Vocational Education. Information Series No. 21, Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University. June 1970. 124 pp. (ED 040 274 MF \$0.65 HC \$6.58).

York, Edwin G., and Butler, Roy L. What State Leaders Should Know about Cooperative Vocational Education. Information Series No. 38. Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University. July, 1971 (VT 012 907, see May 1972 RIE).

Huffman, Harry. Guidelines for Cooperative Education and Selected Materials from the National Seminar Held August 1-5, 1966, A Manual for the Further Development of Cooperative Education. Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University. 1967. 245 pp. (ED 011 044 MF \$0.65 HC \$9.87).

INSTRUCTIONAL MATERIALS

Vetter, Louise, and Sethney, Barbara J. Planning Ahead for the World of Work Curriculum Materials. Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University. January, 1971, 85 pp. (ED 050 272)

Daugherty, Ronald D. and others. Highway Safety Occupational Program Development Guide, Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University. July, 1971, 93 pp. (ED 052 329)

_____. Abstracts of Instructional Materials in Vocational and Technical Education (AIM). Published quarterly. Includes abstracts of materials designed for teacher use or student use in the classroom and annotations of bibliographies or lists of instructional materials. Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University.

CAREER EDUCATION ON-GOING PROGRAMS

Comprehensive Programs

- | | |
|---|-----------------------------|
| 1. Akron Public Schools | Akron, Ohio |
| 2. Milford School District | Milford, Delaware |
| 3. State University System of Florida | Tallahassee, Florida |
| 4. Greenwood Public Schools | Greenwood, Mississippi |
| 5. Cobb County Public Schools | Marietta, Georgia |
| 6. Northeast Oakland Vocational Center | Pontiac, Michigan |
| 7. Peterborough Public Schools | Peterborough, New Hampshire |
| 8. Hackensack, New Jersey Public Schools | Trenton, New Jersey |
| 9. State Department of Vocational Education | Bismark, North Dakota |
| 10. Regional V Education Services Center | Lancaster, South Carolina |
| 11. State Department of Education | Cheyenne, Wyoming |
| 12. Hood River School District | Hood River, Oregon |
| 13. School Districts of the City of Pontiac | Pontiac, Michigan |
| 14. Mesa City Schools | Mesa, Arizona |
| 15. Los Angeles, Unified School District | Los Angeles, California |
| 16. Jefferson County Schools | Jefferson County, Colorado |
| 17. Hackensack Public Schools | Hackensack, New Jersey |
| 18. Atlanta Public Schools | Atlanta, Georgia |

Projects with Community Agencies

- | | |
|---------------------------------|---------------------|
| 1. Como Park Junior High School | St. Paul, Minnesota |
|---------------------------------|---------------------|

Urban Schools

- | | |
|-----------------------------|-------------------|
| 1. Detroit Public Schools | Detroit, Michigan |
| 2. Cleveland Public Schools | Cleveland, Ohio |
| 3. Atlanta Public Schools | Atlanta, Georgia |

Rural Schools

1. Cochise County Schools Benson, Arizona
2. Wake County Schools Raleigh, N. Carolina
3. Franklin Northeast School District Richmond, Vermont

Elementary School

1. Abington School District Abington, Pennsylvania
2. Philadelphia Public Schools Philadelphia, Pennsylvania
3. State Department of Education Augusta, Maine

Junior High School

1. Oakland Junior High School Oakland, New Jersey
2. Independent School District No. 281 Robbinsdale, Minnesota
Robbinsdale Area Schools
3. North Carolina State Department of Public Instruction Raleigh, North Carolina
4. Springfield School District Springfield, Oregon
5. David Douglas School District Portland, Oregon

Senior High School

1. Grossmont Union High School Dist. Grossmont, California
2. Lebanon School District Lebanon, Oregon
3. Grants Pass School District Grants Pass, Oregon