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ABSTRACT

This publication contains the papers presented during a 4-day teacher education seminar. The papers are: (1) "Rationale for Career Education" by R.N. Evans and G. McClosky, (2) "The Context of Career Education" by K. Goldhammer, (3) "Career Education Tenets" by A. J. Miller, (4) "Employer-Based Career Education: The RBS Model" by L.M. Maguire and J.A. Connally, (5) "Potential Changes in Teacher Roles" by C. Dixon, (6) "Potential Changes in the Role of a Secondary Teacher" by O.L. Seaman, (7) "Possible Changes in the Professional Role of a Counselor" by D. Richins, (8) "Career Information System for the Comprehensive Career Education Model" by W.W. Adams, (9) "Occupational Career Clusters the Oregon Way" by M.E. Multanen, (10) "Preservice Preparation of Teachers for Career Education" by L.J. Keller, (11) "In-Service Preparation: Key to Career Education Delivery" by H.N. Drier, Jr., (12) "Possible Changes in Teacher Preparation Programs" by D. G. Ator, (13) "Imperative Changes in Vocational and Technical Professional Development Programs and Activities" by R.E. Lockette, (14) "Possible Changes in Teacher Preparation Programs" by H.L. Wardeberg, and (15) "Rewards of a Successful Career Education Program" by J. Smith. (SB)

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 Kenny Road, Columbus, Ohio 43210

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NATIONAL VOCATIONAL TECHNICAL TEACHER EDUCATION SEMINAR

IMPLICATIONS OF CAREER EDUCATION FO

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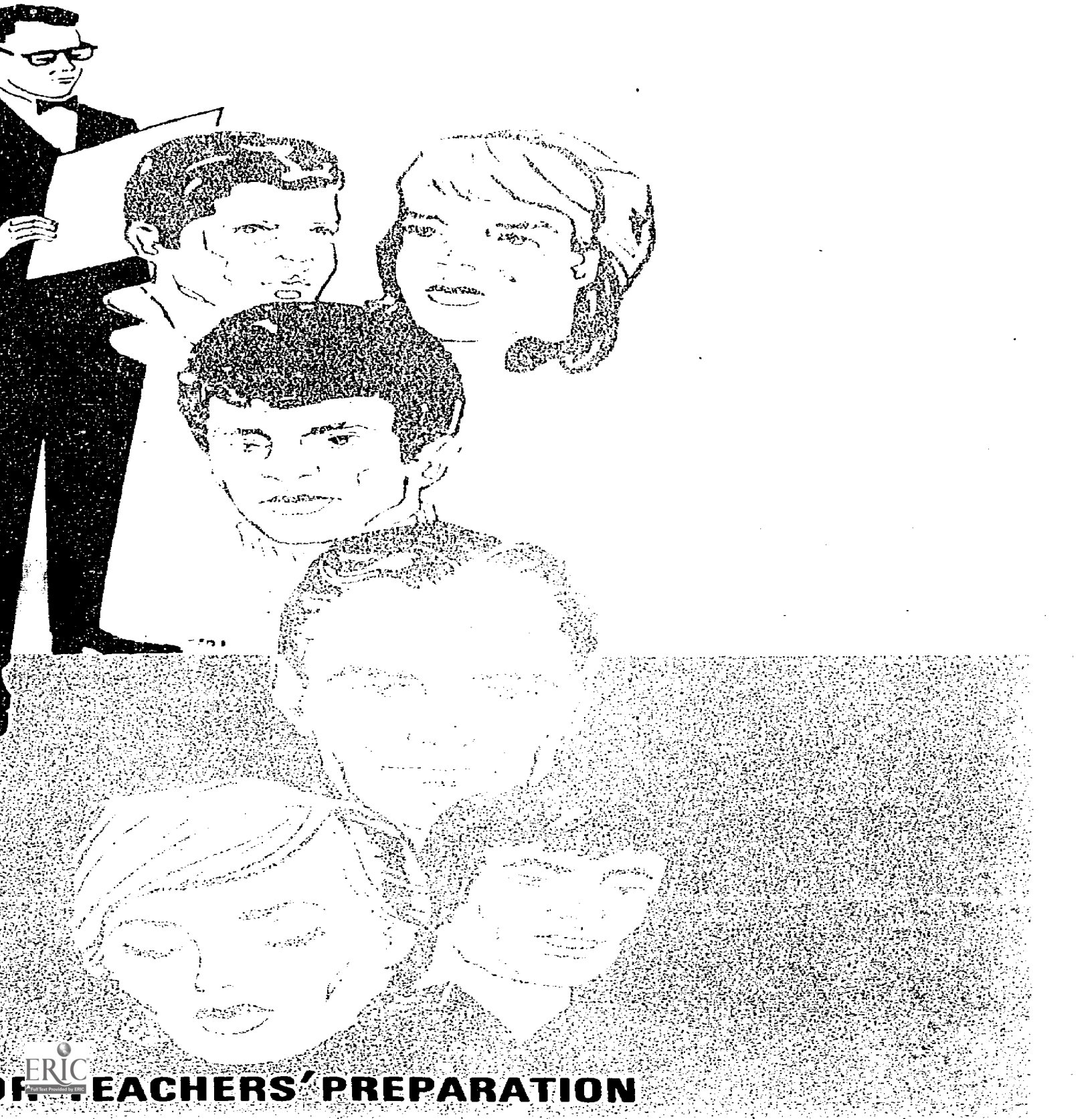

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- Stimulating and strengthening the capacity of other agencies and institutions to create durable solutions to significant problems.
- Providing a national information storage, retrieval and dissemination system for vocational and technical education through the affiliated ERIC Clearinghouse.

LEADERSHIP TRAINING
SERIES NO. 38

SIXTH ANNUAL NATIONAL VOCATIONAL AND TECHNICAL TEACHER EDUCATION SEMINAR PROCEEDINGS

Implications of Career Education for Teachers' Preparation

October 23-26, 1972
Columbus, Ohio

Edited By

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Foreword

Four hundred thirty-one educational leaders from forty-five states, the District of Columbia, and Puerto Rico participated in the Sixth Annual National Vocational and Technical Teacher Education Seminar. The purpose of the seminar, conducted October 23-26, 1972, in Columbus, Ohio, was to discern the implications of career education for teachers' preparation.

The program for the seminar centered around three primary topics: (1) rationale for career education, (2) implications for professional personnel and teacher education programs, and (3) bases for occupational clustering. The implications of the career education concept for teacher education were presented through a series of formal presentations and discussion group interaction sessions. This publication includes the texts of the formal presentations, including reaction from panel groups and summaries of small discussion group sessions.

Appreciation is extended to the session presidents for their assistance in conducting the seminar. Recognition is given to the group discussion leaders who conducted and reported the group deliberations. A special thanks is given to the program planning committee for its help in guiding the development of the seminar. Special notice is given to the following Center staff for their contributions to the seminar: Anna M. Gorman, component director; Joseph F. Clark, research associate; Darrell L. Ward, coordinator; N. L. McCaslin, who guided the seminar's group discussion activity; Jerry P. Walker and Peter Simmons, evaluation; and the research associates who served as hosts and hostesses during the three-day seminar.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

Preface

The Sixth Annual National Vocational and Technical Teacher Education Seminar was held in Columbus, Ohio, October 23-26, 1972. The theme of the seminar was "Implications of Career Education for Teachers' Preparation."

To afford the participants a common background upon which to advance their thinking on career education, four presentations were given. These included the rationale for career education, the context of career education, the tenets for the career education school-based model, and the tenets for the career education employer-based model. Since occupational clustering is an integral part of any career education model, three presentations focused on the bases for occupational clustering, occupational clustering in the Comprehensive Career Education Model, and the Oregon plan for occupational clustering. The implications for teacher preparation focus evolved throughout the program. Three professional persons who are now involved in a career education program discussed their changing roles. An undergraduate program and an in-service education program for preparing professional personnel for career education were presented. Three teacher educators discussed possible changing roles for educators because of the career education emphasis. A summary of the small group discussion is included in this *Proceedings*. The final presentation (and second keynote address) was given on the rewards of being involved in a career education program.

Awards were presented to individuals for their devotion to keeping abreast of educational developments as evidenced by attending five of the six national seminars sponsored by The Center. Copies of the presentations were distributed at the conclusion of each session.

The following collection of scholarly papers is presented to you.

Anna M. Gorman, component director

Joseph F. Clark, research associate

Table of Contents

	Page
FOREWORD	*iii*
PREFACE	*v*
ACKNOWLEDGEMENTS	*xi*
AWARD RECIPIENTS	*xiii*
SEMINAR AWARD	*xv*
CHAPTER	
I. CAREER EDUCATION FOUNDATIONS	1
Presentations:	
Rupert N. Evans and Gordon McCloskey Rationale for Career Education	3
Keith Goldhammer The Context of Career Education	17
Aaron J. Miller Career Education Tenets	29
Louis M. Maguire and John A. Connolly Employer-Based Career Education: The RBS Model	41
Reactor Panel to Tenets:	
Charles Buzzell	55
Patricia S. Kelly	63
B. J. Stamps	67
II. OCCUPATIONAL CLUSTERS	73
Presentations:	
Walter W. Adams Career Information System for the Comprehensive Career Education System	75

Page

Monty E. Multanen 95
Occupational Career Clusters
the Oregon Way

III. TEACHER EDUCATION: ROLES, PROGRAMS, AND CHANGES . 103

Panel: Potential Changes in Professional Roles

Curtis Dixon 105

Orval L. Seaman 109

Duane Richins 113

Presentations:

Louise J. Keller 117
Preservice Preparation of Teachers
for Career Education

Harry N. Drier, Jr. 143
In-Service Preparation: Key to
Career Education Delivery

Dialogue:

Dallas G. Ator 173
Possible Changes in Teacher Preparation
Programs

Rutherford E. Lockette 177
Imperative Changes in Vocational and
Technical Professional Development
Programs and Activities

Helen L. Wardeberg 195
Possible Changes in Teacher Preparation
Programs

Group Discussion Summary 203

IV. KEYNOTE ADDRESS 207

Joel Smith 209
Rewards of a Successful Career
Education Program

Page

APPENDICES

Appendix A - Seminar Program 219

Appendix B - Listing of Program Participants 233

Appendix C - Listing of Seminar Participants 237

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Is Recognized for

Dedication to keeping abreast of current developments in vocational-technical teacher education as exhibited by consistent attendance at the annual national vocational-technical teacher education seminars sponsored by The Center for Vocational and Technical Education, The Ohio State University.

_____

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_____

Director, The Center for Vocational and Technical Education

_____

Date

chapter I

Career Education Foundations

Presentation

Rationale for Career Education

By Rupert N. Evans
and
Gordon McCloskey*

In an interdependent technological society, the development of competence to produce a fair share of commodities and services is a major objective of any realistic educational system. So is the development of ability to earn income. Competence to pursue civilized leisure and to fulfill the general obligations of responsible citizenship are equally important and closely interrelated objectives.

Emerging concepts of "career education" can be viewed as one basic part of the process by which an educational system pursues all of those objectives. Clearly, work and the products of work help make life satisfactory. Work, in itself, can be psychologically rewarding. Useful work can also help people fulfill a major portion of their civic obligations. Income derived from work can enlarge opportunities for individuals and their families to enjoy leisure. Adequate income also enhances individual self-respect and provides opportunities to consume fair shares of the commodities and services produced by fellow citizens.

For these reasons, career education has the potential for becoming more than the catchword of the latest commissioner of education. In other places (e.g., Hoyt, Evans, Mackin, and Mangum, *Career Education: What It Is and How To Do It* [Salt Lake City: Olympus Publishing Company, 1972]) it has been pointed out that each of the components of career education exists in some form in the schools today. They need to be brought together into a coherent whole, extending from early childhood education, through post-secondary education of many types, to education for retirement.

---

*Dr. Evans is professor, Department of Vocational and Technical Education, College of Education, University of Illinois.
Dr. McCloskey is professor, Department of Education, Washington State University.

In order to form a coherent whole, which is clearly related to other aspects of education, career education needs a rationale. This rationale is beginning to take shape, through speeches, books, articles, and conversation among concerned educators and other citizens. This paper is an attempt to add to the development of such a rationale by examining five of its related parts: need for practice in career decision-making, motivation for learning the material in the school curriculum, the importance of work to society, the changing needs for workers, and the need for preparation for work.

Practice in Career Decision-Making

Much of the current school program actually discourages decision-making by students. Each year of school is designed to prepare for the next, the curriculum is largely predetermined, and the only real decision in school is the decision of whether or not to meet the school's expectations. Even here, the full force of society is marshaled to force compliance.

Most youth make tentative occupational choices several times before they enter high school. If a child of age seven or seventeen announces that he wants to be a lawyer or a truck driver, we may be reasonably sure of three things: (a) this tentative decision is made on the basis of inadequate knowledge of his own characteristics and of the demands of the job; (b) the school has done little to provide either type of knowledge; and (c) the school will say, in effect, "You are too young to concern yourself with such things. They should be decided later."

Every college has graduates who are about to complete the baccalaureate serenely confident that a decision about the type of work to be sought or any other important decision can be postponed still longer. This continual deferral of decision-making is not true of all other cultures and need not be true of this one. Avoidance of decisions can be taught as can ability to make decisions.

The recent literature on career development makes it clear that ability to make adequate decisions in this field is learned behavior. The term "occupational choice" is no longer favored, because it seems to imply a one-time, irreversible decision. Careers are built through a series of experiences that affect sequences of decisions, most of which are revocable, occurring throughout life. Obviously these decisions can be planned, they can occur by chance, or some combination of planning and chance can be involved. Most of the research in career development suggests that most careers in our society follow one of the latter

two patterns. This type of research is descriptive and concentrates on describing what types of careers are actually followed by people who have different types of careers.

It is not enough, however, to be able to describe typical patterns of careers that exist today. By any standard, many careers are unsatisfactory to the individual, and many careers contribute little to the goals of society. Such careers are not the goal of career education. Rather, the goal is the development of an ideal career.

From the standpoint of the individual, an ideal career may be defined as a succession of work experiences, each of which is personally more satisfying than the one that precedes it. Such an ideal career is much more likely to be reached: (a) if it has a firm base in career education, (b) if the student, whether youth or adult, learns that satisfactions are built on more than immediate earnings, (c) if the student learns more and more about his or her interests and capabilities in relationship to the needs of society, and (d) if he or she is taught that there are preferred ways of securing and evaluating jobs.

Some educators seem to have an almost irrational fear of teaching decision-making in relationship to the world of work. They seem to feel that such instruction will lead to early, irrevocable occupational decisions which will minimize future student options. This attitude seems a bit like that of the parent who does not allow a youth to have dates until reaching the age of twenty-one. The intention is to keep the youth's options open; the effect is often the opposite--a liaison with the first person available after the bars are let down.

Career choice involves some of the most important decisions of a person's life. It does much to determine his standard of living and, even more important, his style of life and much of his happiness. A decision as important as this should not be left to chance or have no base in education. Adequate career development demands a series of choices, extending over a period of time, and education has a vital role to play in facilitating these decisions and enabling them to be made on a more rational basis.

Motivation for Learning What the School Teaches

The series of tentative occupational choices which students typically make can be used to provide motivation for learning much of what the school has to teach. For some students, there is too little motivation to learn in school. The standard motivational ploys used in the school are "Learn it! You'll like it!" or "Learn it! It's good for you!" These motivations suffice for some of the pupils most of the time, but not for all of the pupils all of

the time. One way to build intrinsic motivation is to show ways in which the material to be learned is relevant to the needs of society. It is possible that young people today are more concerned about service to others than any previous generation in our society. Career education provides a means for demonstrating the social relevance of most school learnings by showing their relationships to socially relevant careers and, indeed, to the continued existence of society.

Perhaps an even more important motivator is provided by showing the ways in which material taught and competencies developed in the school are relevant to the individual goals already held by the student. The tentative occupational choices made by most students provide a natural vehicle for demonstrating relevance. Most school subjects can contribute something to success in each occupational field. All school subjects can contribute a great deal to success in some occupational fields. If the student can be shown how the subject is relevant to his or her personal interests, motivation to learn is enhanced.

There are two common but contradictory objections to using student occupational choice as a motivational force for school learning: (a) the choice made by the student is almost certain to be changed and, therefore, does not provide a stable base for motivation; (b) the school, by using the student's choice of occupation as a motivating factor, is locking the student in and decreasing his or her options. The first of these objections assumes that stability is desirable, while the second assumes that it is not.

Career development involves a series of tentative occupational explorations, each of which appears to the individual at the time to be highly important and worthy of further study. Whether the occupational choice will be the same in a month, a year, or ten years is not important from a motivational standpoint. In order to learn to read or write, one must read or write about something. Too often the teacher wants each student to read or write about the same things. But learning would certainly be enhanced if each student reads or writes about those things in which he or she is interested. If that interest changes next month, the student will still retain the basic skills learned in the process. It is important to design instruction so that reading and writing (and other school subjects) make sense while they are being learned. By capitalizing on tentative early vocational choice an additional motivating factor can be provided.

It is also important, however, to note some of the by-products of such learning. It is no minor accomplishment to learn enough about an occupation and about oneself to be able to decide whether or not to continue in that field of interest. Neither is it a small matter to be able to come to a decision, rather than

postponing it. Nor is it inconsequential to be able to research a topic and come to a conclusion.

All of this assumes, of course, that the teacher knows enough about the applications of his subject to be able to be of some assistance to a learner, and that the teacher is willing to allow students to pursue different interests while still learning common subject matter.

The Importance of Work to Society

It has always been true that no society can exist without work. Any one individual may elect not to work, but work has to be performed to furnish food, shelter, and other necessities of life for the individual and to enable society to move toward the achievement of its goals. Throughout history, there have been predictions of a society in which no one will have to work because slaves or machines will take over. Such predictions overlook the work needed to secure and subjugate slaves and to build and maintain machines and to supply energy to them. They also overlook the psychic effects of dependency on human or nonhuman slaves. Work, by some, if not by all, will continue to be one of life's necessities, and for many people it will remain one of life's rewards, because it provides self-fulfillment and another good reason for existence.

In recent years, however, the nature of work has changed. One of the most important changes has been that unskilled jobs have decreased sharply in number while skilled and professional jobs have become far more complicated. At the same time, the number of youth has increased markedly. This has had the effect of sharply increasing the unemployment of youth. (In the 1930's youth unemployment was one and one-half times as high as general unemployment. For forty years it has increased steadily, and now it is more than three times as high.) Youth who have had vocational education (a part of career education) have unemployment rates only equal those of the general population.

Unemployment rates do not tell the whole story, however. In order to be unemployed, one has to be looking for paid work. An increasing proportion of youth are not looking for work and hence are not counted among the unemployed. Some of these people have looked for work, could not find it because they had no salable skills, and stopped looking. The part of career education that develops salable skills obviously could have helped them. An even more basic problem is developing, however. There is a youth subculture that rejects work, largely because its members do not understand the contributions of work to society and to individual well-being in more than a monetary sense.

It is a well-known fact that attitudes are first shaped early in life and that attitudes toward work are formed as are other attitudes. For example, first-graders have clear attitudes as to which occupations are desirable for men and which for women, and these attitudes often do not change between the first and sixth grades. These findings suggest that the part of career education which has to do with attitudes toward work (e.g., the dignity of all productive work) needs to start in early childhood. Moreover, these findings suggest that the present elementary school program is having little effect on changing attitudes toward work.

The Changing Nature of Work

Analysis of both national and state occupational projections supports eleven general observations regarding occupational trends:

1. Occupational opportunities and requirements continue to change. So do the types of capabilities involved in effective work.

2. The rate of change is accelerating. Existing occupations become obsolete at a more rapid rate. Types of skills and knowledge required for work in most occupations are changing at a faster pace.

3. Steadily larger percentages of workers change jobs more often.

4. Steadily, the work force becomes more mobile. Larger percentages of workers move from one geographic location to another with increasing frequency.

5. Numbers and percents of workers earning incomes in low-skill occupations continue to decline.

6. In a steadily growing percentage of work situations effective performance requires higher levels of skill and knowledge.

7. There is a growing similarity between capabilities contributing to on-the-job success and preparation for post-high school training.

8. Unemployment among teen-agers and young adults, especially among poorly educated members of minority groups, is increasing.

9. The geographic locations of specialized industries continue to shift.

10. Variations in national levels of ecomonic activity, national priorities, money supplies, and interest rates continue to cause drastic variations in levels of employment in particular occupational categories in particular localities, states, and regions.

11. For all of the above reasons it becomes increasingly difficult, if not impossible, to predict exact local levels of employment in particular categories.

The above trends indicate the growing stake of individuals, localities, and states in career education plans that maximize worker adaptability and readiness for retraining.

When local "reductions in force" are necessary, or deemed desirable, few firms are able to find other jobs for many of their displaced personnel. That is not the primary function of individual firms. But in a fluid occupational world preparing workers for job adaptability, mobility, and retraining is one primary responsibility of educators.

Increasing Need for Higher Levels of Knowledge and Skill

The steady increase in the percentage of the work force employed in occupations requiring higher levels of skills and technical knowledge increases the urgency of providing modernized occupational education for steadily larger percentages of the population. In the past substantial percentages of people could, and did, earn incomes in occupations requiring little or no education. As such occupations continue to disappear, unemployment of unskilled and semiliterate teen-agers and adults in low-income occupations is increasing. This is intensifying social tensions and increasing the costs of welfare and unemployment compensation. It is urgent to plan vocational counseling services that give young people a chance to base occupational choices on much more awareness of the full range of possible choices and the scope and speed of change.

Most vocational educators recognize the facts of accelerating occupational change. Most of them also recognize the immense human and economic stakes of individuals, localities, states, and nations in planning for vocational-technical educational programs that enable youth and adults to steadily earn incomes and enable industries and geographic areas to maintain satisfactory levels of economic activity. Likewise, there is growing public awareness of the heavy personal and social costs of outmoded occupational competence and unemployment.

The increasing tempo of job obsolescence, and increases in the frequency with which a growing percentage of workers encounter need for retraining, demonstrates the urgent need to plan educational programs that enable youth and adults to acquire the types and combination of capabilities that equip them for entry jobs and also for the frequent retraining necessary for reasonably steady employment during the years in which they must earn incomes.

There is urgent need for occupational education planners to recognize the growing inadequacy of vocational training aimed only at entry job capability plus periodic retraining for another specific job. Obviously such efforts should continue to be two major parts of a total career education program. But in view of facts demonstrating the increasing tempo and scope of technological development and occupational change, such training alone does not provide a built-in mechanism for avoiding prolonged periods of unemployment and for decreasing the difficulties of the retraining which is becoming a steadily larger aspect of every person's ability to earn an income.

Both national and state projections of occupational change provide means of identifying major types of occupational opportunities generally available in the near future and major types of specialized and general capabilities youth and adults will need for job entry, advancement, and mobility. Provisions for enabling youth to acquire such capabilities should be starting points for any career education plan which avows intent to equip individuals for steady employment during their work-age years.

The following general capabilities have been demonstrated to be fundamental:

(a) minimum levels of literacy

(b) oral communication capabilities, especially conversation and informal discussion

(c) basic science and mathematics capabilities

(d) motivation to earn an income and pursue necessary training

(e) attitudes that contribute to individual productivity and cooperative on-the-job human relationships

Elementary and secondary schools can, and should, play major roles in development of those capabilities. Increasingly, these general capabilities become an essential foundation for development of specialized technical capabilities that make people employable. Likewise, such capabilities are increasingly essential for more of the retraining more people more frequently find necessary.

At present much vocational counseling and training results only in placing persons in entry jobs that soon disappear and in retraining for other specific jobs that are also soon outmoded. Both entry job competence and retraining for specific jobs are essential. But it is also urgent that such training include development of general capabilities that increase worker adaptability and increase worker ability to acquire new and higher levels of competence. Unless this is done, in a world of rapid occupational change, entry job training and retraining for one more specific job alone has a perpetual dog-chasing-its-tail result.

Career education planning should aim at providing instruction and counseling that provide youth and adults with the capabilities, perceptions, and attitudes that have been demonstrated to be essential for inevitable retraining and occupational mobility. This, in turn, indicates the growing need for joint elementary-secondary-trade school-community college policy development and planning.

Facts showing the growing need for general capabilities that make people occupationally adaptable and facilitate frequent retraining demonstrate the growing need for developing much closer planning and operational relationships between vocational and general education. All educational planners should carefully avoid being mired in historic but outmoded distinctions between general and vocational education. This need for coordinated planning is reinforced by the principle that persons preparing for all occupations have equal rights to education that prepares them for equal participation in civic affairs and rewardful leisure. No group of pupils should be deprived of the general education essential for exercise of those rights.

All of the above facts emphasize the growing need for more effective combinations of instruction and counseling. Experience is demonstrating that simply making instruction available does not alone enable pupils to recognize its benefits to them nor motivate them to complete adequate training. This is especially true of youth living in rural areas and urban neighborhoods where their perceptions of opportunities and need are restricted by limited contact with the wide and expanding variety of occupations that actually exists.

As more occupations require higher levels of skill and knowledge, persons lacking such capabilities will become less and less employable. Consequently, as provided by the 1968 federal legislation, vocational education must intensify its emphasis on adequate training for pupils who need it most. It is urgent that our traditional practice of selecting pupils most likely to succeed be heavily supplemented with additional effort to assure occupational competence for those who are presently least competent and least motivated. Unless vocational education takes such steps,

and quickly, steadily larger percentages of youth passing through public schools will become less employable.

Recent studies show that a growing percentage of teen-agers and low-income adults in cities and rural areas are becoming unemployed. The increase in percentages of unemployed Black, Chicano, Puerto Rican, and native American teen-agers is particularly high and is growing at a much more rapid rate than for Caucasians. This brings up major questions about vocational education policy and objectives and its role in the nation's comprehensive manpower development programs.

So far vocational educators have tended to select students deemed most ready to enter training programs and most likely to succeed. With some reason and justification, the assumption has been that vocational educators' first obligation is to provide competent employees for local industries. That is a legitimate objective which should be maintained. But, current experience demonstrates that that objective alone is inadequate to meet the needs of a growing percentage of youth and the total needs of communities. Some agencies or institutions must accept responsibility for preparing even the less able youth to become occupationally competent. No society can afford to have increasingly large percentages of young people roaming the streets and becoming still less able to earn incomes.

Numerous observers predict that if the present trend continues, there will be an increase in public demand that agencies other than schools take over ever larger portions of vocational education functions.

As more occupations grow more technical and as accelerating rates of change increase the need for more frequent retraining, there is a corresponding increase in the similarities of general capabilities required for occupational competence and for success in post-high school education.

The "either-or concept that the secondary school can, should, or will track pupils for only "vocational" or only "college" training is outmoded by changing occupational and educational opportunities requirements. Students will be better motivated and their plans will be more realistic if emphasis is placed on open doors and diversity of choice rather than closed doors and the illusion of one-track occupational routes.

The currently popular assertion that "you do not need college training for work in most jobs" has varying degrees of validity. But it is probably a poor basis for planning effective career education programs. Various levels of post-high school training are occupationally useful to a growing percentage of individuals. And

preparation for such training is an integral part of training for entry and advancement in a growing number of modern occupations.

It is more practical than ever to provide pupils with both the specialized training necessary to enter a specific occupation and the general capabilities that equip him for either on-the-job retraining or for advanced post-high school education.

Obviously, millions of people are earning good incomes "without going to college." But that fact does not at all imply that they could not, or should not have opportunity to also pursue some level of post-high school education for whatever reasons they may have.

Genuinely effective career vocational education should help open doors to higher levels of on-the-job retraining and to various levels of post-high school education. It should not close doors. From the standpoints of pupil motivation and activation of public support it is urgent that vocational educators avoid statements implying that it does or that it should.

Preparation for Work

When the concept of career education began to take form there was considerable confusion over the role of preparation for work in such an educational plan. Some vocational educators have assumed that specific preparation for work constitutes nearly the whole of career education. Contrariwise, some general educators appear to have assumed that when career education is implemented fully, vocational education will become passe and that preparation for work will no longer be the responsibility of the schools. Neither position seems defensible.

The existing situation is that the formal education structure provides extensive preparation for work in certain occupations and little or none in most occupations. Society provides a great deal of moral and financial support for university graduate schools. Each program in these schools has as a central focus the preparation of people for work. Graduate school is the capstone of education for vocations in many of the academic and professional disciplines. Recently there has been some concern that graduate schools may be turning out more workers than the labor market can absorb, but there has been no controversy over whether or not this type of vocational training is a proper role for publicly supported educational programs. We recognize that we need those who will push the frontiers in the liberal arts, sciences and professions. We feel that formal preparation for these occupations is desirable for society and for the individual being educated.

Similarly, a high proportion of students in four-year colleges are engaged in programs which prepare them for work as journalists, teachers, nurses, engineers, farm managers, etc. For all of these students there is substantial tax support. (In "public" schools this support is more visible, but fellowships, tax exemptions, buildings, materials, and services for which the public pays are vital to private schools as well.)

Far fewer opportunities are available for preparation for work in occupations which require less than a four-year college degree for entrance. Although only 20 percent of jobs require the baccalaureate, more than half of high school students are preparing for college work, and only 25 percent of high school students receive preparation through vocational education for the remaining 80 percent of the jobs. Some of this vocational education is of very high quality, but some of it is obsolete or inefficient. Virtually none of it is available to students who choose to drop out of school at age 16 or whenever this is a viable alternative. Clearly, vocational education in high schools and community colleges is a vital ingredient in career education, and must be expanded in scope so that every student who needs it and wants it can have access to high quality vocational education in the field for which he or she wishes to prepare.

The remainder of the labor force is trained in quite different ways, each of which may have disadvantages for the trainee:

1. For certain jobs in the largest firms, the company itself conducts the training, and passes the costs on to the consumer. With the exception of apprenticeship, which graduates less than one percent of the annual additions to the labor force, the content and extent of the training is controlled by the company. Sometimes the options of the trainee are enhanced, but this is not the goal of the training.

2. Similar comments may be made about military training, except that the taxpayer foots the bill. There are relatively few civilian jobs needing the skills of a thoroughly trained infantryman. In technical fields, if the reenlistment rate drops because too many trained personnel find jobs in the civilian economy, training courses have been redesigned to decrease trainee options outside the military.

3. Proprietary schools train sizable proportions of workers in a few fields and a few workers in each of many fields. Quality of training varies greatly from one school to another, and cost is a bar to certain students who most need help.

4. All jobs require skills related to finding employment and working with others, but some jobs require little or no specific preparation. The proportion of such jobs has decreased enormously as technology has eliminated the need for unskilled and semiskilled workers whose jobs can be performed efficiently by machines.

A portion of every job is learned at the work place, through trial and error, with the consumer eventually paying the bill, both in money and in frustration. In the school, specific preparation for work can be justified only if the instruction there is more efficient or if student options are increased, relative to those provided by other training methods.

Preparation for work, both in the school and on the job is a vital part of career education. If it is not available in sufficient quantity, or if it is designed in ways which fail to increase student options, or if it is restricted only to certain prestigious occupations, many students will suffer. Lower class students suffer the most because schools are concerned with occupations typically entered by middle class students and ignore the occupations usually staffed by persons of low socioeconomic status. To add insult to injury, our middle class society then proceeds to convince lower class students that this type of occupational discrimination is good for everyone.

The need for preparation for a broad range of occupations does not stop with entry into employment. People change jobs, and jobs change in ways which require additional knowledge. Each change requires additional awareness, exploration, and preparation, and hence career education. Society has every reason to facilitate these adjustments to work change, and career education offers an effective vehicle for this facilitation.

Summary

A rationale is a reason for existence. Before career education can be fully accepted, it needs such a reason for existence. A rationale is also an examination of underlying principles. Such an examination is needed in order for career education to develop parts which are complementary, rather than antagonistic.

This paper has suggested that many, if not most, students need practice in decision-making and added motivation for learning the material in the school curriculum. It suggests that as presently constituted, schools often encourage students not to make even tentative career decisions, and rarely teach decision-making. It suggests that while some students are motivated to learn because

the school says they should learn, other students need to see the social and individual relevance of material in order to learn it efficiently. Career education should and can be designed deliberately to minimize these deficiencies.

Further, this paper has suggested that not only is work important to society, but also that a major goal of education should be to teach the dimensions of the importance of work to all students. Career education provides a natural vehicle for this instruction and for formation of an individual work ethic that is grounded on more than hedonism.

Finally, it is noted that our society requires that most individuals be prepared for work. We have organized our schools so that they provide preparation for occupations which typically are occupied by the middle and upper class. The great majority of occupations, especially those performed by the lower socioeconomic class, are virtually unmentioned in the school. Specific preparation for careers which emphasize these latter occupations is turned over to employers and to proprietary schools, where those least able to pay must pay either in reduced earnings or in substantial fees. Employers and proprietary schools have important roles to play in occupational preparation, but the rationale for career education suggests that the site and method of financing for occupational preparation should be determined on the basis of efficiency of instruction and on maximization of student (rather than instructor) options.

If this rationale is effective, career education programs which are designed with it in mind should be more internally consistent, more nearly geared to increasing student options, more readily accepted by all parts of the community, and more effectively evaluated.

The Context of Career Education

By Keith Goldhammer*

I suspect that historians of the future will have a field day analyzing the society of the United States of the twentieth century. The diversification with which they may describe the nature and conditions of life in the United States and interpret the significance of various events and factors may well be even more variegated than one finds in the contemporary literature. This should not be surprising to us, for most of the great transitional periods in history are subject to such diverse interpretations. Regardless of all the possibilities inherent in the analysis--and they are almost endless--I think that there are three things that will inevitably have to be considered, no matter from which discipline the analyst may come. It would be hard to justify the contention that the conditions under which men live in the twentieth century are neither socially disintegrating, alienating, nor dehumanizing.

I suspect that this leading statement already has led you to characterize me as a pessimist, for it is truly depressing to look upon these conditions as those that may chiefly characterize the age in which we live. Yet, I suspect that, at least to a certain extent, these have been conditions of existence in practically all societies. The problem is that they are greatly accentuated and intensified in this society, and never before has it been so difficult to deal with these problems in a constructive fashion. Sometimes when we are in the midst of the forest, it is difficult to see the rays of light shining on the tops of the trees.

Social Disintegration

Our society is socially disintegrating, in the minds of many people, because for the first time there is an inescapable necessity to recognize the pluralism that characterizes our cultures. We have generally held to the dream that we are a unified and

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united people. All have the same values; all the same goals; everyone wants the same things in life, and everyone has the same access to the opportunities and benefits of a free society. Even when Gunnar Myrdal wrote his devastating critique of the disparity between American ideals and social practices, it was hard, if not impossible, for Americans to accept the pluralism that permeated their social structure. Americans looked upon their society as a Christian society and paid no heed to the fact that there were also Americans who were Jews, Mohammedans, Buddhists, Shintoists, Hindus, agnostics, and atheists. The dominant values of the middle class, white, Protestant, Anglo-Saxon, dominated ethics as well as the mores of our society; and the Protestant ethic, as defined by Webster, was the ultimate ideal and goal of the American school system.

This myth of unity was achieved at a terrible price. The price was the disenfranchisement of those individuals who stood at the periphery of the main stream. The very idea that there was a main stream, and that all other groups were minorities, aliens, or in some ways pathologically incapacitated from entering it, constituted the crushing and terrible reality of discrimination, prejudice, and denial in American society. One read employment notices that said, "Only Christians need apply." One relegated Italians, Orientals, Polish, Negroes, Mexicans and Irish into various low-level job classifications, both because of stereotypes about them and because it was easy to maintain the establishment as located in the white, middle-class Anglo-Saxon, Protestant population by considering as unworthy all those other groups. Lest we forget, even within the white, middle-class, Protestant establishment there was a division, for many of the opportunities, rights, and privileges accorded to men were denied to women, and we created the stereotypes of the fragile, irrational, unlogical, dependent, and menial female that still dominates much of the ethos of this age.

The chauvinism of the middle class had to be challenged and, although there were rumblings of change in the thirties and the forties, it wasn't until 1954, when the Supreme Court opened wide the door, that the challenge truly emerged. With the full-fledged emergence of the challenge came a feeling that the values for which this society stood were disintegrating, were becoming fragmented. To those who had power, privilege, and exerted control, the need to recognize the pluralism of our society meant not only their loss of power, the need to incorporate other people into the establishment, the necessity to disperse privilege into opportunity, but also a challenge to all the pet little stereotypes, which made it possible for them to live in a narrowly restricted world and feel their right to enjoy and maintain privileges was justified because of their superiority over other people. It has taken us about a decade to recognize that the diffusion of power, the equal availability of opportunity, the dispersion of privilege,

and the acceptance of pluralism are not disintegrating if we have a positive approach to the problems of the social, the economic, and the political democratization of American society.

Throughout this entire decade, one thing has been lacking in achieving the goals of democratization. What is essential for each individual if he is to have equal and fair access to all the opportunities that are offered in our society? What is essential if he is to escape the stereotypes through which he has been assigned to low-level jobs, powerless positions, discrimination in social affairs, and indifferences to his economic and political needs? To keep pluralism from degenerating into the disintegration of society, equal access to the economic opportunities afforded by society must be provided. One facet is to open job opportunities to all who qualify, provide the chance of employment to individuals in areas where previously they had been effectively eliminated.

But just broadening the opportunity for employment is not sufficient. An individual must have the skills, the knowledge, the characteristics required for employability in these various occupations. An education that is purely academic, that is primarily oriented toward the dissemination of knowledge in discrete little capsules, is not the kind of education that will help us realize this essential social objective. What is needed is an education that prepares individuals, and particularly those individuals who have been disenfranchised from equal opportunity, for employment along the entire continuum of manual, white collar, and professional vocations. The solution to the issue of breaking through employment stereotypes is grounded in the need to have an educational system that helps each child discover what his maximum potential is, and, then, to help him aspire to achieve the maximum level of employability congruent with his potential, an education that enables him to acquire the refinements of his skills, the discipline of his mental and physical faculties, control over the social and intellectual environments so that he can achieve all that is required of him to obtain job entry and job succession at the highest level possible. That education is, essentially, career education.

I think it is apparent that social disintegration is the inevitable consequence of our failure to recognize the pluralism in our society. The present efforts of previously dependent minorities to gain recognition, to achieve status and stature, to maintain a viable pluralism that opens opportunities within the economic, social, and political worlds for all individuals, regardless of differences that exist and will persist, lead to social integration and not to disintegration. The role of the school is to provide that opportunity for individuals to find out what they are worth, to acquire what knowledge they need and the skills they can develop, so that they are ready to climb the career ladder, consistent with their ability, rather than being disenfranchised from

it. The primary goal of career education is to help every individual become so capacitated in the performance of all of his life roles that he is able to become a fully participating, contributing, self-fulfilled member of society.

Alienation

The second great problem of our society is the problem of alienation. By alienation, I refer to that human phenomenon that causes an individual to feel apart from, that restricts his belonging, that separates him from feelings of community with his fellowmen, that denies him, either psychologically or physically, the opportunity to contribute to and participate in the total life of the community of which he is a part--all of which contribute to his feelings of incapacity and loneliness. Alienation is obviously a part of the disintegrating forces in American society, particularly when we establish caste systems, which prevent the full, free, open participation of all individuals in the activities legitimated by the culture and society. I suspect that one of the central themes of modern existentialism is that of "man alone," independently and fragilely facing the overwhelming forces of the world. Each individual is inevitably the Atlas who carries on his shoulders all of the troubles of human existence. As in all social and human pathologies, it is difficult to determine where a healthy state of being suddenly becomes a pathological condition of existence.

If we carefully review the research, I strongly suspect that we will conclude that there are several factors in man's growing pathology of alienation. Some of those factors that contribute to his alienation are the inevitable consequences of our living in a mass society, and there probably isn't a great deal that can be done about these. But other aspects of that alienation result from how we treat human beings in a mass society, and a great deal can be done about these.

The essential question to which we must respond is, "How do we help all individuals as they are growing to maturity to become a part of rather than apart from society?" What is the essential element of living in a society that makes an individual feel a part of the community of human beings, capable of making his contribution to his fellowmen, rather than separate and distinct from the community, alienated, either a hermit or an outlaw?

Unfortunately, we see both tendencies greatly augmented in modern society and particularly affecting the youth of our society: the growing crime rate, growing particularly from the fact that young people are denied access to economic opportunities that will enable them to buy the good things in life that they want and require; the increasing number of young people who, because they

lack the competency necessary for participating within the framework of the system, cop out, drop out, alienate themselves further from it, and become either the victims of the drug culture, the extremists who fire bomb and destroy, the hysterics who shout obscenities at public figures, extortionists, egomaniac hi-jackers who, in their neurotic concern about escaping from the system, show their total disregard for human life and well-being. Their alienation is a monument to their contempt for their fellowmen and the conditions under which civilized and moral society can persist. This alienation is not a characteristic of any one group, neither ethnic, religious, nor socioeconomic. Although we do not understand many of the characteristics, we do know that practically any age group is susceptible and can be the victim of the virus.

What is the chief antidote for this alienation that threatens so many of our young people, even if they are a small percentage of the total? What is the means through which we might be able to turn our young people "on," rather than "off"? The main problem of alienation is the inability to cope, to find one's place, to gain recognition and acceptance within the legitimated structure, hence, the effort to escape the structure, to deny the validity of the structure, to be incapable of coping with the problems inherent within the structure, to fail to find one's place within the system.

There are three essential problems here. One is the problem of coping; one is the problem of placement; and the third is the problem of sophisticated, rational understanding. Let us take the third one first. It is a curious thing, but as we have discussed the fundamentals of education we have always included reading, writing, and arithmetic, the three most simple nuts-and-bolts kinds of problems to identify, difficult as the attainment of skill in some of these areas may be, particularly when the skill required is irrelevant to the purposes and aspirations of the child. But, in addition to these important elements of educational fundamentals, is also the fundamental of logic. A civilized society is one that must be based upon reason and understanding and the ability to predict consequences from existing states of affairs, events, and behaviors.

To be sure, to cope with the problems of living in our society, an individual must have the ability to read, write, figure, and analyze. What is important is that these skills be placed in the context of the developmental needs of each child. He must emerge in his ability to use them to solve his problems. Emphasis must be placed upon his development in his ability to make decisions about his future. Although we have sometimes seemed to consider these tool subjects as ends, they are basically just what their designation implies, tools, or means, through which the individual gains knowledge and understanding.

The next question is knowledge and understanding of what and for what? The alienated person does not understand or accept himself in the context of the society of which he is a part. To relieve alienation or "innoculate" the child against it, he must be helped to gain self-understanding in relation to the environments of which he is a part. To cope with his environments he must know his potentials as well as the nature and requirements of his world. Because we have been hemmed into an educational structure, we have not developed an educational system that encompasses or is related to fundamentals required by the individual to cope with the whole range of problems that he confronts as a human being who must find his identity, who must create the conditions through which he can become a respected human being taking his rightful place, based upon his ability to participate and contribute.

Here, too, career education is relevant and has a strategy for relieving the pathology. Its strategy is to center concern upon that which is fundamentally essential for his finding his place in society, having the skills necessary to cope with all of the conditions which surround his life. The two elements, place and cope, are interrelated because an individual's ability to cope is dependent upon his finding the position in which he is based in society and from which he develops the amenities necessary for dealing with all the other conditions of his existence. That position, whether we like it or not, is fundamentally the economic base from which he obtains both his identity and his ability to survive. We are known by the nature of the activities in which we engage, which provide goods or services for our fellowmen and the means for our own subsistence.

Humanistic psychology maintains that the ultimate aim of the educational system for every child is to help him find meanings in his existence so that he can find his place and can cope, that he has a self-image of an individual who is not alone but who belongs because he is competent to deal effectively with the problems of his existence in society. That goal is essentially the goal of career education, for it seeks, as I have already said, to help each individual independently find the means through which he can become so capacitated in his life roles that he has the self-image of a person who can cope, who has a position, who can find his role in the economical order and can effectively produce goods or render service to his fellowmen. The goal of career education is to help individuals to belong to society because they can develop fully their potential for being of service to their fellowmen, as well as to themselves.

Instead of insisting upon an educational system that is based upon a meritocracy of academic skills, career education seeks an educational system that is clinically oriented toward helping each child develop his capabilities in such a fashion that what he has to offer is prized and is fully developed into operating personal

systems so that he finds his identity in socially acceptable and socially constructive directions.

Alienation will never be fully conquered in a technological age. It will persist, and individuals will feel alone, oppressed with overwhelming problems of relating themselves effectively to their fellowmen and to the tasks to which all human beings in our society must address themselves. But we can reduce the debilitating effects of it. When the goals of career education are fully realized in our society, we will no longer screen individuals out, dump them on the human rubbish heap, deny them an opportunity to develop the competence necessary for fulfilling themselves in their life roles, leaving them susceptible to social and personal neuroses, the victims of those who would take advantage of them. The only viable answer to the social alienation of our age is an educational system that helps to capacitate individuals so they can be effective in all of their life roles--and that is what the advocates of career education hope to achieve.

Dehumanization

Much has been written in recent times about the extent to which the conditions of existence tend to make things of human beings, tend to deny their humanity, tend to force them into molds in which they are used as pawns to serve ends that may be alien to their nature as human beings, to subvert them to the market psychology, organizational imperatives, or the power drives of the establishment. Modern technology, the mass media, Madison Avenue, political opportunism, operant conditioning, and behavioral modification are all strategies devised in contemporary society to make people conform to what others expect of them, to deny them the free will to make choices, to create in them a self-image of the automaton who is earning his bread and surviving on the level of animal self-gratification, devoid of the spiritual essence of man as a creative force within the world, whose ultimate objective is to recreate the basic conditions of a clean environment on a fruitful earth, capable of maintaining, improving and enjoying the conditions of man's effective living on this planet. As Herbert J. Muller has attempted to demonstrate through his scholarly analysis of historical development, the loom of history has been man's search for freedom, his desire not to be imposed upon by individuals with power and in control of the essential resources necessary for his effective living.

The great problem for us, as educators, is to find the reasons why, in spite of the excellence of our educational system, in spite of the universal educational goals that we have had, in spite of the philosophy of education in the United States that has held that an effective educational program must help in fully developing the capabilities and potentials of each child, man has become

victimized by the dehumanizing forces of his existence. The answer, I think, is found, at least in part, in that our educational system has been structured around the wrong conception of what education is all about. For, contrary to every other factor that may be significant in how we operate, our educational system has been based upon the conception that the function of the school and the teacher is to disseminate knowledge. Except for excellence in athletics, what has been prized and legitimated in our school system, is academic excellence. We have a grading system that assures that those with high conceptual skills will gain most of the rewards, regardless of what may be the state of their morality, their aspirations of service to their fellowmen, or their self-image as an individual who can exert his true humanity. We have prized conformity and obedience in our school system. We have prized memoriter activities; we have helped to create a situation in which only those who are rebels can truly emphasize their creative potential. The knowledge that we disseminate is that of the past cultural heritage related to the mechanical techniques of the so-called academic disciplines. The effectiveness of the school has been measured in terms of the scores that individuals achieve on standardized tests and the academic prizes that individuals win.

Probably the most serious social problems of our society arise from the disregard in the educational system for the fact that man, as a human being, must work. Adriano Tilgher, in his wonderful little book, *Homo Faber: Work through the Ages*, has traced the concept of work through the major cultures of history. The disparities in attitudes towards work are noteworthy. In those cultures based upon elitist, aristocratic models, wherever the mass of human beings were to be controlled and used as pawns to satisfy the hunger for power, prestige, and authority of a favorite few, work has been viewed as a necessary evil, something relegated to the dispossessed, an aspect of society that must be endured by the masses so that the few can enjoy privileges. In the more highly democratized societies, work has been viewed as an essential element of human existence that is man's privilege and opportunity for finding his destiny in the world and for using his potential for helping all citizens of the society, including himself, achieve a state of effective living. Studies of contemporary workers have shown that most human beings would feel lost, dehumanized, and alienated without the opportunity for performing services or producing goods that are essential to their fellowmen. In this technological age in which we can produce surpluses of essential goods with a reduced work time, the question has been raised as to whether or not work will disappear. Idleness, separation from meaningful employment, and continued existence merely on a level of animal self-gratification or dependence upon the paternalism of social welfare workers are not conducive to the humanization of man. The essential fact has been neglected that, regardless of whether or not the efforts of all human beings are needed to produce the physical necessities of life, the release of human beings from

drudgery gives us an opportunity to emphasize the creative, the socially constructive, the more enlightened work potential of people. We have failed to recognize that in the history of the greatest period of cultural achievement there was a surplus of labor for providing for the physical necessities and that surplus was employed to enhance the quality of human living. The age of Pericles, the age of Augustus, and the age of Franklin Delano Roosevelt are good examples. In this period of our history we must be deeply concerned not only with how we help individuals become engaged in the performance of activities leading to our economic wealth, but to our spiritual and cultural wealth as well.

As Tilgher points out, the humanization of man, the fulfillment of man as man, is dependent upon our attitudes toward work, our involvement of all in work which is meaningful to them, our recognization that work, whether on the vocational or the avocational levels, is an essential activity in which all humanity must engage.

The issue before us is how do we resist? How do we compensate for the dehumanizing tendencies of the mass of society? The answer to this question, I am convinced, rests in a multitude of factors; but the most important of them is the nature of the educational system that we create and the objectives it serves. Knowledge is considered something apart, something unrelated to human activities, human aspirations, goals, and purposes. Knowledge to be mastered as an end in itself is a part of the dehumanization that children experience in school today. Knowledge that is instrumental to the purposes of the child, knowledge that helps him to relate to other people and fulfill himself as a human being, that knowledge is humanizing. Finding his place in society with meaning, with relevance, with purpose, with ideals and values that enable him to feel proud to be a part of society, worthy of recognization in accordance with the ethic of human integrity helps him to become fully human and capacitated in his ability to deal effectively with those forces and factors in our society that would deny him his full humanity. A school system that helps him to be a part of the culture, the economic life, the political necessities of existence, the ability to gain power and economic well-being, that school system helps to arrest the dehumanizing tendencies of our society.

Where is that school system? What is that educational program that is being offered today to concentrate on the developmental needs of individuals in their life careers so that they can become fully capacitated to deal effectively with the life problems, the environmental problems, societal problems that confront them? These are the fundamental questions with which concerned educators are trying to cope, and we seem to have three fundamental proposals for educational reform. One is to make the curriculum harder, more academic, more elitist, the result of which will be to continue to

give privileges and prestige to a few, to relegate the many to low status and low-level jobs, and to condition them to be satisfied, to want no more. The few will be the masters, and the many will be like Garal Capek's zombies.

The second proposal is the free school, the one in which individuals grow as their inclination or intention dictates, and I am convinced that the net results of this school will be like planting a garden and then letting everything grow like weeds, uncultivated, unnurtured, untutored, and undisciplined. I think the basic conception of this school goes back to the theories of Lysenko, the discredited Soviet geneticist, who felt that nature coincided with the laws of historical development of Karl Marx and found eventually its own path of development and culture. Recently, I had a chance to see Lysenko's untended garden at the University of Moscow, and the weeds have taken over, and the healthy plants that could be of use have either degenerated or been destroyed by the noxious ones. Young human beings need to have their capabilities cultured, their potentials disciplined, and their intellects nourished.

In my estimation, the third proposal, the one that seeks to do this most effectively, is career education. I submit to you that the basic concept of career education is based upon a new conception of learning that suggests there are three elements in the process of learning and that these three elements enable each human being to achieve mastery over himself, over his culture, within his environment, and in relation to his fulfillment as a human being in a democratic, free society. These three elements are, first, discipline, by which I mean that the individual has learned how to use his physical being effectively so that he can direct his energies, cultivate his potential, utilize his inheritance so that he can become a capacitated and a fulfilled human being. The essence of a disciplined person is that he has gained knowledge of what he can achieve, how he can cope, so that he has a self-image as an individual who effectively participates, belongs, and accomplishes.

The second element of this learning concept is control, by which I mean the individual's control over himself and his ability to utilize the processes, the artifacts, the elements of the society and the environment of which he is a part. Instead of being hopelessly adrift because he is undisciplined, because his capabilities have not been cultured and refined, the individual is able to achieve his legitimate aspirations because he can effectively use those things that are a part of both his physical, social, and spiritual environments.

The third element of the learning system is meaning. A human being must have meaning in his life if he is to resist the pressures toward his becoming an automaton, meaning that gives purpose

to his existence, meaning that helps him to understand who he is, what he is on earth to accomplish, how he relates to his fellowmen, how he can use his potential most effectively to achieve satisfaction, fulfillment, and relatedness.

Conclusion

In the end, career education says that the child is the center of the educational universe, and the central mission of the school is to promote his ends, to help him become the kind of person who contributes to social health, who has feelings of belonging, of communion with his fellowmen and his community, who refuses to be put upon because he is incapable of resisting the power of those who would exploit him.

I would concur with those who declare that career education is not necessarily a panacea for all of our educational problems and dysfunctions. We must solve problems related to learning strategies, content adaptations, and guiding human growth and development before we have completely humanized our approach to the education of children and founded educational practice upon the soundest foundations. But career education is a strategy for dealing effectively with the basic problems that confront human beings as they are growing toward maturity.

If we educators and the general public can accomplish through education what the basic concepts of career education imply that we can achieve, then, I think there will be a great historian of the future who will write that social disintegration, alienation, and dehumanization were threats to the social health of the United States in this part of the century, but the American school system met the challenge, and a strong and more democratic society emerged. This is the great challenge to educators today.

Presentation

Career Education Tenets

By Aaron J. Miller*

One of the most interesting educational phenomena in our time has been the growing national interest in, and development of, programs in career education. Furthermore, this interest seems to have developed over the past several years in many different states and local settings in an almost independent and spontaneous way. While it is true that career education has received substantial support and encouragement from the federal government, the initial fragmented interest in the concept was present in embryonic form throughout the United States before the concerted governmental focus on the concept as a national priority.

During the summer of 1971, the U.S. Office of Education surveyed the various states in an effort to identify local school districts with notable career education activities. During this process, more than fifty districts were identified as having substantial activities in career education that were either under way or under development. (1) This fact is significant in that the first major announcement of the U.S. Office of Education's intensive priority in this area was through a speech that Commissioner Sidney P. Marland delivered to the 1971 convention of the National Association of Secondary School Principals in Houston, Texas, on January 23, 1971. Clearly, this announcement validated the fragmented but significant national interest in career education and established the U.S. Office of Education as a patron of the new movement.

As in most new social developments, the concept of career education was without clear definition. Although numerous philosophical positions had been stated and programs were being developed based upon local interests and needs, career education was just an attractive philosophical concept being operationalized in many diverse settings without any consensus relative to philosophical boundaries or operational guides.

One might speculate that a new innovation such as career education could gain a foothold and flourish more rapidly by establishing a definition at its outset. However, with the vested

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interests and hidebound academic dogmas existing in American education, such an attempt to crystalize a definition probably would have spelled an early death to the concept.

While the U.S. Office of Education was providing unprecedented financial and professional support for the concept during 1971, they were scrupulously careful not to establish a "national" definition for career education. Rather, they chose to let the concept mature and develop locally by providing financial stimulation with general statements for conceptual guidelines. Such a strategy would conceivably encourage a wide range of innovative program development at the local level. Then, at a later date, the most promising and viable operational concepts could be coalesced into an acceptable definition of career education.

This strategy was clearly established by Commissioner Marland in his presentation to the Pennsylvania Personnel and Guidance Association in November 1971, when he said: "The program (career education), if it is to be built, will be built by people like you across the land. We in OE will encourage, provide money and technical assistance, but no approved solutions." (2)

As career education programs developed across the country, governmental leaders, educational administrators, practitioners, and university-based educators and researchers began to propose operational guidelines and philosophical positions that began to establish the boundaries of career education.

In his initial career education speech to the National Association of Secondary School Principals in January 1971, Commissioner Marland suggested that we dispose of the term, "vocational education" and adopt the term, "career education." He pointed out that career education and vocational education were not synonyms, but that vocational education was an integral and important part of career education. In this same presentation, he condemned the general education curriculum but endorsed a new unified career education curriculum that blends and balances the academic preparation with the vocational or career preparation program. (3)

In a later presentation, Commissioner Marland stated that career education must guarantee job entry skills for all high school graduates and most dropouts. But these must be undergirded by the sound foundations of mathematics, social science, and English that all need to function in virtually any field of employment. Furthermore, he stated that a placement service that will actually place young people into jobs must be established and that such a system must be appropriate for <u>every</u> young person. (2)

In a speech delivered at the University of Northern Colorado in June 1970, Dr. Louise J. Keller proposed a career development education model which would integrate career development information

and experiences into the educational system. (4) In her model, she proposed the components of career awareness, career exploration, career identification and orientation, career preparation, career entrance, and career assessment and recycling. These components would comprise a model appropriate for elementary through adult education.

During this same period of time, a project entitled Careers Oriented Relevant Education (project CORE) was being developed in the state of Oregon. The objectives of this career education program were to provide sufficient experiences and information at all grade levels so that students could be aware of their abilities and, hence, make wise career choice decisions. Furthermore, the program was to assure educational relevance to the world of work.

Four Tentative Definitions

In early 1971, the Bureau of Adult, Vocational and Technical Education in the U.S. Office of Education developed a working paper with several definitions of career education. While none of these definitions were ever proposed as an official definition, they were tested with various professional groups for their reactions. (5) These definitions were:

1. Career education is a concept that educational experiences should center around careers in the economy in which people live. It encompasses the educational experiences from early childhood through the productive life of the individual.

2. Career education is the infusion of all educational curricula and student counseling, K-14, of information and hands-on experience pertinent to real life jobs and world of work experience. The main thrust of career education is to prepare all students for successful "life of work" by improving the basis for occupational choice, by facilitating the acquisition of job skills, and, most important, by enhancing educational achievement in all subject areas and at all levels through making education more meaningful and relevant to the aspirations of students.

3. Career education is the development of motivational attitudes and interests in the world of work, knowledge of the world of work, and the skill necessary to function and to continue functioning in the world of work.

4. Career education is an educational delivery system, including all levels of education, designed to provide the necessary learning experiences for every person that will

permit him to attain his individualized goal of occupational readiness and societal responsibility at a level commensurate with his ability and desires.

While the four definitions had commendable points, none was totally acceptable as adequately describing the still amorphous concept of career education.

The Multi-faceted Man

Perhaps the most attractive features of the developing conceptualization of career education were that the program was "relevant" and that it was appropriate for all students. In effect, it could provide the necessary educational experience to prepare one for all roles of life.

In his treatise on "A Careers Curriculum," Keith Goldhammer pointed out that the scope of a career education curriculum should prepare one for the various "life careers" in which he must engage as a member of our society. (6) These careers were identified as: (1) a producer of goods or a renderer of services, (2) a member of a family group, (3) a participant in the social and political life of society, (4) a participant in avocational pursuits, and (5) a participant in the regulatory functions involved in aesthetic, moral, and religious concerns. Stated in another way, these careers might be identified as: (1) the economic man, (2) the family man, (3) the sociopolitical man, (4) the leisure man, and (5) the aesthetic man. With career education defined this broadly, there is little wonder that career education should be attractive to all concerned.

If career education is concerned with preparing one for all of life's roles, how does career education differ from any ideal educational system? In a sense, it really does not in that most of its concepts have been promoted, tried, or discussed during the past thirty years. It does differ, however, in its delivery system. The U.S. Office of Education points out this difference as follows: "The difference comes in the fusion of the academic, vocational, technical, social, political, and artistic areas--and all the rest--for all students; not the mere availability of several tracks. Career Education is best characterized as 'comprehensive'." (7)

However, if career education is all encompassing, focusing on all of life's roles, does it achieve this with equal emphasis on all roles? Probably not. While career education addresses all of these essential life roles, the main focus or emphasis is toward the "economic man" role--the area of education that most schools have done least well.

Career Education Tenets

There has been a considerable amount of career education literature and operational program guidelines generated over the past several years. Analyzing these materials, one can begin to identify certain clusters of philosophical agreement among career education proponents. By further analysis of these philosophical clusters, one can construct a set of tenets, or principles and beliefs, that may serve as a functional definition of career education. For this functional definition, the following tenets are proposed.

Tenet Number 1: Career education is a comprehensive educational program focused on careers. It begins with the entry of the child into a formal school program and continues into the adult years.

There are many themes or life roles that one could choose as the cohesive core for developing an educational system. However, the most common need or life experience that members of our society share is that of personal career development. Regardless of our birthright or station in life, we make certain decisions, based upon our personal needs, abilities, aspirations, and opportunities, that determine our livelihood. This choice, in turn, has implications for our life style, sociopolitical relationships and virtually all of life's roles.

Career development provides a highly relevant (perhaps the most relevant) organizational theme around which education can be unified. With this infusion of relevance, education not only takes on a new and exciting meaning for the learner, but also prepares him for rational decisions that will help make his economic life role one of personal choice rather than chance.

To date, little research has been done that identifies the most powerful intervention points or times in the human and career development process. Career development theory indicates that individuals progress through many stages of career development needs through their lifetimes; and these needs begin in the early elementary years. Thus, if a meaningful career education system is to be built, it must begin in the early years of child development and continue to provide the information and experiences needed for realistic career choice and preparation through adulthood.

Tenet Number 2: Career education involves all students, regardless of their post-secondary plans.

One of the most obvious social cast systems in America may be found in our nation's secondary schools. The majority of our nation's high school graduates do not go to college, yet most of our high school programs are designed for those who will go to

college. Furthermore, social pressure--in part generated by the school--makes it socially unacceptable for a student to choose the non-college preparation route in a clearly bifurcated high school curriculum.

Career education provides the potential for a single-track system appropriate for all individuals. However, it must provide the necessary variety of educational options to honor the individual career development goals of all students. It must not force the debilitation of career choice and occupational preparation imposed by the college-prep/non-college-prep curriculum dichotomy.

Tenet Number 3: Career education involves the entire school program and unites the schools, communities, and employers in a cooperative educational venture.

Any education that does not relate to some existing or potential life role of the learner cannot be justified. Career education provides the relevant theme that can unite the entire school curriculum by relating knowledge, appreciations, and educational tool skill mastery to the life role needs of the learner. In some cases, the substantive area of education may have its greatest potential for relevance by relating to the needs of the "aesthetic man." Art and music provide excellent examples of these areas. However, some individuals pursue full-time careers in these "aesthetic" fields or areas of work that relate to these fields. The point is, the entire school program can and should relate to the life role needs of the individual; and the life role needs of the "economic man" provide the greatest potential for educational application.

If a career education system is to provide the broad range of educational experiences that prepare students for rational career choices and career preparation, the resources of the community and employers must be used. There is literally no way that the school can provide the real life settings for allowing students to explore their various career interests with hands-on experience. Likewise, there is no way that the school can provide specific career preparation skills or vocational education in all areas that students might choose in preparing for a career goal. However, these opportunities can be provided through cooperative arrangements in the community and with employers. When these cooperative liaisons are instituted, the schools, the students, the community, and the employers are united in a cooperative venture, which assures broad community involvement in shaping a relevant school program.

Tenet Number 4: Career education infuses the school program rather than provides a program of discrete career education curriculum "blocks."

To maintain the integrity of the concept that career education involves the entire school program, career development concepts, information, and experiences must be infused into the existing curricula. For it is the infusion of these concepts that revitalizes the curriculum through educational relevance. The mere addition of separate, discrete courses or learning units related to careers does not make existing courses more relevant. Furthermore, these separate units are easily discarded as educational priorities change.

Besides maintaining the educational integrity of career education through the infusion concept, there is a very practical administrative argument for infusion rather than substitution. Most school districts are experiencing rising educational costs and reduced budgets. Consequently, many districts are reducing the number of classroom periods per day and eliminating many elective educational experiences. With this trend toward reduced classroom periods and reduced support for ancillary programs, it is unrealistic to expect wide adoption of "add-on" career education. If career education is to develop, flourish, endure, and achieve its goals, it must become education. This can only be achieved through infusion.

Tenet Number 5: Career education provides the student with information and experiences representing the entire world of work.

If career education is accepted as having a primary focus on the "economic man," the education system must prepare the individual for the lifelong process of vocational development. Havighurst (8) has identified a series of specific developmental steps in the process of vocational development. Four of these steps are:

1. Identification with a worker such as the father, mother, or significant others (ages five to ten)

2. Acquiring the basic habits of industry, such as learning to organize one's time and energy to accomplish a piece of work (ages ten to fifteen)

3. Acquiring identity as a worker in an occupational structure, including choosing and preparing for an occupation and getting work experience as a basis for occupational choice and for economic independence (ages fifteen to twenty-five)

4. Becoming a productive person, including mastering the skills of one's occupation and progressing in that occupation (ages twenty-five to forty)

If the student is to make adequate progress through these or similar stages of vocational development, the public school must provide the mechanism to assure that the appropriate learning experiences take place. It would be impossible for any single school system to provide hands-on exploration experiences representing the entire world of work. However, an effective career education system must provide information about the entire range of career options and vocational experience along with actual exposure to as many real life experiences as possible. Furthermore, a broad range of vicarious learning experiences must be provided so that by some means (real or vicarious) the individual learner is systematically exposed to experiences representing the entire world of work. Only then can the learner be expected to make the most realistic career direction-setting decisions and vocational choices consistent with his or her needs, abilities, aptitudes, and personal goals.

Tenet Number 6: Career education supports the student from initial career awareness to career exploration, careers direction-setting, career preparation and career placement, and it provides for placement and follow-up including reeducation if desired.

If career education is to deliver on the objective of enabling individuals to make rational career choices, the educational delivery system must be systematically directed toward this end. The educational program must be designed so that the delivery of career development information and experience is consistent with the human development capabilities of the learner. It has been suggested by most proponents of career education that career awareness is an appropriate activity to begin in the elementary grades, career exploration an appropriate activity to begin in the middle school years, and specific career preparation an appropriate activity to begin in senior high school or at the post-secondary level. This does not mean, however, that career awareness and exploration is limited to the elementary or junior high school. These activities can continue at various levels of intensity throughout one's life.

A key element in a career education system is the placement function. If the educational system is to be responsive to the needs of all individuals, it must provide a placement mechanism for all individuals--not just the college-bound. This placement service or program must provide placement for all those who desire to be placed, either on the job or in a career related work setting, in the next appropriate educational setting consistent with the individual's career goals, or with some special service agency. The placement function must be closely articulated with the guidance program of the school, and both must be functionally related to the curriculum of the school.

If schools are ever to be held accountable for their stewardship in the development of human resources and the expenditure of tax funds, a placement and follow-up function must be part of the school system. Only in this manner can a realistic feedback loop be established that will maintain a relevant school program that meets the needs of the students and society.

Tenet Number 7: Career education is not a synonym for vocational education; but vocational education is an integral and important part of a total career education system.

Vocational education serves a crucial role as an integral part of career education. It is through vocational education programs that employment skills can be delivered. Furthermore, the linking of specific employment skill activities to academic subject mater can provide a rich reinforcement of relevance for all subject matter. In a career education system, a student is guided toward a better understanding of himself, his interests, abilities, and aptitudes. He is made aware of career opportunities consistent with his aspirations. He is provided a wide range of explorations that should assist him in career direction-setting decisions. These decisions ultimately culminate in some kind of specific training for employment. The training may be at the high school, post-secondary, or college-university level. In some cases it may be on-the-job training after employment. However, everyone entering gainful employment receives their final preparation for employment in one of these four ways.

Vocational education has traditionally been responsible in varying degrees for all of the specific skill training programs of less than baccalaureate degree level. In a career education system, vocational education will continue to be responsible for this specific training for occupational competence. There are, however, some differences in the expectations and responsibilities of vocational education in a career education system. These are: (1) the kinds of vocational education offerings presented must offer a wider range of choices to students than most schools now present, (2) vocational offerings must be closely related to or integrated with academic offerings, (3) there must be a greater emphasis on student placement and follow-up, and (4) vocational education programs at the high school level must have greater articulation with post-secondary, vocational-technical programs.

Summary

Career education is still a developing concept. Although there are many operational programs and philosophical points of view concerning the concept, no clear programmatic definition has been widely accepted. Furthermore, there is little likelihood that there will ever be such a definition.

Career education is an aggregation of ideas, hopes, and desires for a better educational system, a system that students will enjoy because of its relevance and educators will advocate because of its effectiveness. It is a system that communities and school patrons will approve and espouse because of its congruence with societal needs and a system that business and employers will aggressively support because of its practicality and efficiency.

A school system may purchase or "buy in" to as much of the concept of career education as it chooses. However, for a career education system to deliver its maximum potential, it is suggested that the system should be designed and installed consistent with these tenets of career education.

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Presentation

Employer-Based Career Education: The RBS Model

By Louis M. Maguire
and
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Research for Better Schools, Inc. (RBS) is one of the regional educational laboratories created under Title IV of the Elementary and Secondary Education Act. It is currently developing an employer-based career education model. Three other laboratories are charged with the same responsibility. They are the Far West Laboratory for Educational Research and Development, the Appalachian Educational Laboratory, and the Northwest Regional Educational Laboratory.

Introduction

Employer-based career education is a concept in search of a definition. Conflicting perceptions of the concept are scattered throughout the literature and very different kinds of models are under development in laboratories across the country. Even the operational programs of the various models are constantly changing as new resources are uncovered and new approaches discovered. There are no established policies, no fixed programs, no concrete procedures. In short, there are no tenets of employer-based career education. This situation is not necessarily bad and may, in fact, produce constructive results.

Given the ambiguity surrounding the concept, career education should be treated as a high risk, experimental venture. The demand for career education is leading schools to buy a career education approach with little understanding of what the concept implies or how to go about implementing a program. If premature definitions and preliminary programs are accepted, career education may well become another educational concept that apparently was "tried and failed" when in fact it was never really tried. Career education programs must be carefully defined, implemented,

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and evaluated so that sound results and products can be disseminated over time.

Perhaps the only way to supply a meaningful definition of the still elusive concept is through long-term operational experience. In other words, the concept becomes defined by what is actually done and by the results that are obtained in trying to operationalize a program. Model development in this instance follows a cycle of activities that begins with the design of a preliminary program, moves quickly to develop an operational prototype, provides for continuous evaluation of the program in a live setting, and uses the results as a basis for redesigning the program. The RBS version of an employer-based model is moving in this direction.

At this point, the RBS model is in the operational prototype stage. A preliminary program has been designed and is currently being implemented in a live setting in Philadelphia. The remainder of this paper is a report on the RBS experience with the model to date. Some background information on the development of the model is provided, the nature of the prototype program is outlined, and some propositions about the purpose and meaning of employer-based career education are presented.

Historical Background

RBS has been involved with the employer-based career education model since June of 1971. At that time, the United States Office of Education (USOE) contracted with RBS for the performance of a feasibility study of the employer-based career education model concept. The feasibility study was to cover the following nine areas: (1) curriculum, (2) evaluation component, (3) cost analyses and payment systems, (4) consortia organization/management, (5) instructional program staff, (6) guidance and pupil services, (7) legal issues, (8) program entrance and exit criteria, and (9) synthesis of eight studies.

During the summer of 1971, RBS began to organize and conduct the feasibility study. Around October 1971, USOE asked RBS to change its posture. Instead of doing feasibility studies, RBS was asked to establish an operational employer-based model. RBS accepted this new challenge and submitted to USOE a two-volume report that portrayed the preliminary findings of its feasibility study. The submission of the report ended RBS' feasibility study phase.

From October through December 31, 1971, detailed plans for the establishment of an operational model were developed. The planning was based upon the following major assumptions:

1. RBS would form an independent corporation to be responsible for the operational model.

2. USOE would directly fund the new corporation, and RBS would assume a technical assistance role.

3. The operational model would be a tri-state one, drawing students and resources from Philadelphia, Pennsylvania, Camden, New Jersey, and Wilmington, Delaware.

4. Two hundred students, ages fifteen to eighteen, would be included in the program.

In early January of 1972, RBS submitted to USOE a detailed operational plan that was based on the above assumptions and began to perform the relevant tasks. For example, state education agencies and local school districts were contacted, and RBS proceeded to contact employers and community leaders for the purpose of establishing the new corporation. A meeting of the incorporators of the new corporation, the Academy for Career Education, was held, and the articles of incorporation were signed. The Academy for Career Education was chartered as a private, nonprofit corporation in the Commonwealth of Pennsylvania.

In February 1972, RBS was notified by USOE that a tri-state program was not then feasible, that RBS, not USOE, was to be responsible for the operational funding of the academy, and that insufficient funds existed to cover the costs as projected by RBS.

In analyzing the implications of this notice, RBS, in conjunction with the incorporators of the academy, decided to reevaluate the approach to the projected effort. Major outcomes of the reevaluation were:

1. The need for a closer, more continuous and greater connection between RBS and the academy

2. The need for internal reorganization of RBS' effort

3. Delimitation of the initial effort to one hundred students in grade 11, ages sixteen and seventeen, from Philadelphia

The approach to developing and testing an employer-based model was then separated into two components: Program Development and Program Operations. Both of these components placed primary attention on the following activities that had as their target the implementation of an operational program by October 2, 1972: (1) designing and developing the instructional program and guidance system; (2) recruiting, screening and selecting of students;

(3) negotiating and planning with employers for participation in the program; and (4) orienting program participants.

Significant progress has been made in all of these areas since that time. Instructional and guidance programs were designed and are being implemented. (A description of the instructional program is contained in the next section.) Employer contacts have advanced to the point that RBS had secured the commitment of thirty-three employers to participate in the program. About thirty hours of face-to-face discussions were included in planning a program with each employer. One hundred students who represent a cross section of the student population in Philadelphia were recruited and selected. The academy officially opened on September 19, 1972, with a seven-day student orientation program. On September 28, 1972, the instructional program began.

In summary, RBS is proceeding to develop and test an employer-based career education model called the Academy for Career Education. The academy is a private, nonprofit corporation. It is also licensed by the Commonwealth of Pennsylvania as a private academic school. The academy has its own board of directors who serve as the policy-making body for the operational program.

An Overview of the RBS Model

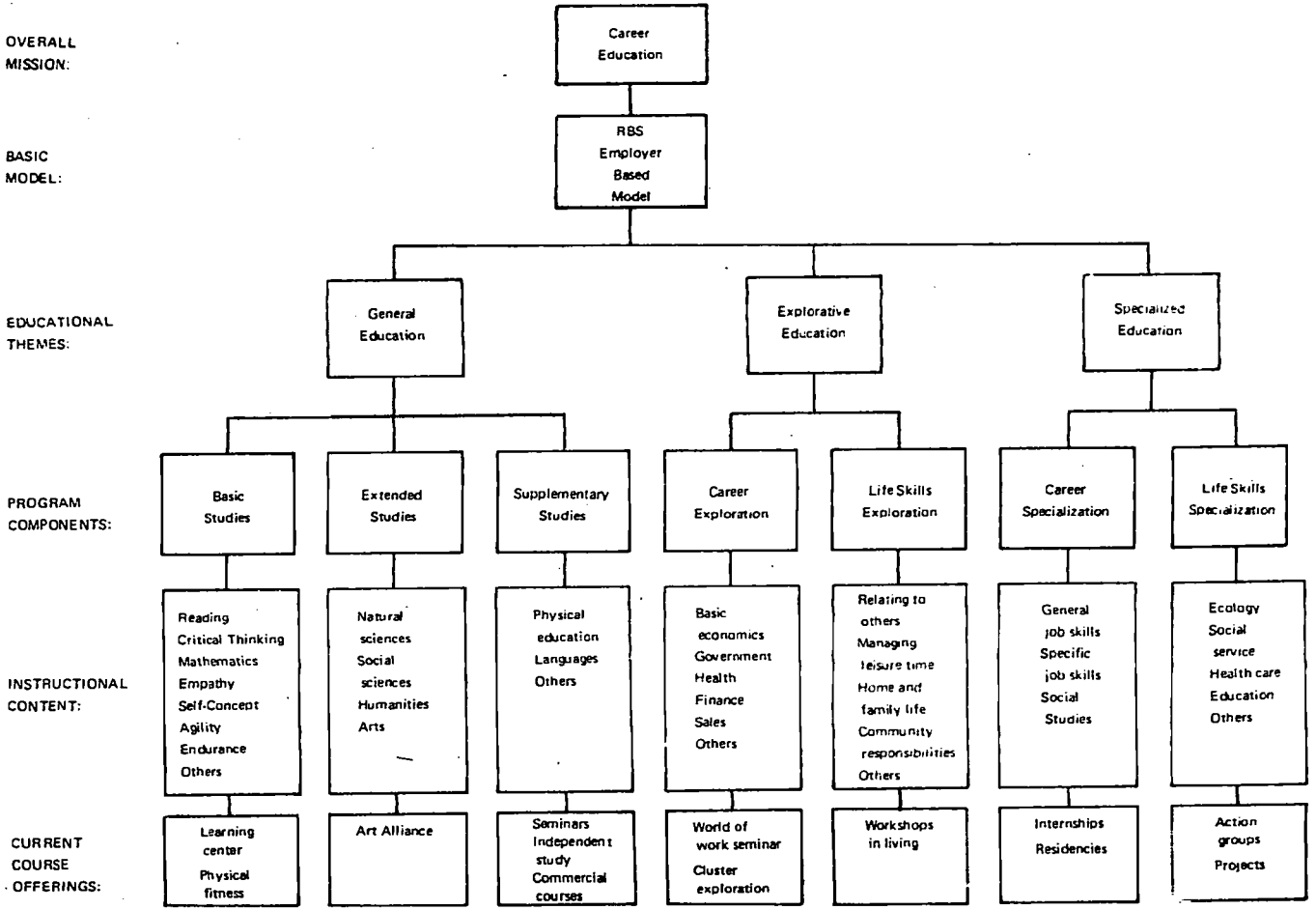
The model of employer-based career education involves four major elements: a management structure, an instructional program, guidance and counseling activities, and an evaluation plan. The central element of the model is the instructional program since the nature of the instructional activities strongly influence the governance and management of the institution, the nature of the student personnel services, and the shape of the evaluation. To a large extent, the instructional program defines the model.

A preliminary version of the RBS instructional program is now being implemented in the Academy for Career Education. The academy offers a full year program that is divided into four three-month quarters. More than half of the instruction is conducted by employers. The chart on the following page shows the various instructional activities included in the program under three major educational themes.

General Education

The content areas commonly associated with a secondary school educational experience fall in this category. The instructional content has been subdivided into three components, Basic Studies, Extended Studies, and Supplemental Studies.

RBS EMPLOYER-BASED MODEL



Basic Studies provide the cognitive, affective and psychomotor skills that all students need to master the instructional program of the academy and to function effectively in later life. Minimum performance standards have been defined for many of these skills and every student has been measured against these criterion-referenced standards. The cognitive area includes skills in communication arts, mathematics, listening and thinking; the affective area involves basic skills in intra- or interpersonal behavior; and the psychomotor area addresses perceptual, motor and physical skills.

Students who need to develop their cognitive or affective skills are provided a highly individualized learning program in a learning center housed at the central facility. A physical fitness program is prepared for each student, depending on his needs and interests. It may be conducted at a variety of locations throughout the city using facilities available at YMCAs, universities, and neighborhood recreational centers.

Extended Studies involve the "core" curriculum content in the natural sciences, the social sciences, the humanities, and the arts. An instructional program in the arts has been developed in cooperation with the Art Alliance, a professional association of artists in the city. It provides a series of lectures and demonstrations in the major fields of art (e.g., sculpture, drawing) for all students. This required portion of the program is followed by individual and small group work with professional artists in an area of the student's choice. Additional programs in science, mathematics, and social studies will be developed in conjunction with professional associations and individual employers.

Supplementary Studies include an extensive variety of optional courses that are tailored to individual needs and interests. Different approaches were used to provide a full range of optional courses for student choice. The participating employers were surveyed to enlist the cooperation of qualified staff members in teaching small group seminars. Over one hundred different seminars, ranging from Korean to karate, were offered to students from this source alone. Each student was also given a one hundred-fifty dollar allowance that can be used to pay tuition fees for approved training programs offered by commercial institutions in the city. Additional courses were made available through a comprehensive independent study program using a variety of curriculum packages such as the United States Air Force Institute (USAFI) materials, computerized courses developed by the School District of Philadelphia, and published materials.

Explorative Education

The purpose of explorative education is to provide a wide-angle view of the world of work and a series of life situations.

These learning experiences can be distinguished from the more academic learning activities found in General Education on the one hand and the more narrowly focused work involvement of Specialized Education on the other hand. Two different kinds of explorative experiences are provided at the academy.

Career Exploration provides students with a broad perspective of the economic system and career opportunities through a structured series of examinations of employer clusters. A student explores a different cluster area each quarter. A cluster is formed by three related employers, for example, the Finance Cluster includes a bank, an insurance company, and a brokerage house. The cluster areas of Communications, Finance, Government, Health, Manufacturing, Research, Sales, Utilities, Systems, and Logistics were offered in the first quarter with the cooperation of thirty-two different employers. Each student spends one or two days a week at the employer location for these cluster explorations. A World of Work Seminar, conducted by the local Chamber of Commerce, provides an opportunity for students to share their cluster experiences and problems and to discuss their career plans.

Career Exploration involves a study of the world of work; Life Skills Exploration includes study of many other aspects of living. Students participate in a series of Workshops in Living conducted at the central facility. The long-range objectives of these workshops involve helping students to learn to use leisure time effectively, to assume community rights and responsibilities, to prepare for home and family life, and to relate well with others. The instructional process involves small group activities designed to increase awareness of self and others, clarify values, develop creative problem-solving techniques and foster self-motivation.

Specialized Education

The final theme in the career education curriculum, Specialized Education, allows the most extensive involvement with actual career and life skills experiences and projects. This theme of the program will be implemented in the academy during the second quarter, beginning in January. The instructional design is again organized around two components: Career Specialization and Life Skills Specialization.

Career Specialization consists of the two related kinds of learning experiences. The internship is an intermediate step between the rather general study of career opportunities offered in exploration and the more detailed work experience provided in a residency. The internship allows a student the opportunity to work at a selected employer location in a career area of particular interest for a relatively brief period of time. The residency is an intensive examination of a specific job in an employer setting

over a more extended period of time. The internship provides rather general job related skills; the residency includes the acquisition of more sophisticated work skills. A work/study plan for each internship or residency is developed in negotiations between the students, the employer and the academy counseling staff.

Life Skills Specialization involves students in activities termed action groups and projects. The action groups are designed to help the student develop and apply the skills learned in life skill exploration. It focuses on an examination of selected issues in contemporary life with a special emphasis on planning and implementation of group action in response to identified problems. Students might become involved in areas such as care for the elderly, voter registration drives, ecology programs, or tutoring children with learning disabilities. The project involves the student in regular participation in the ongoing work of local agencies committed to social action projects such as drug addiction rehabilitation centers, community groups, clinics, etc. Action groups and projects will usually be conducted under the auspices of public service agencies.

An important issue in developing a career education program is the extent to which the educational activities are structured. How many instructional hours should be required? Should the program be organized to meet predetermined instructional objectives or be designed to allow maximum flexibility for student choice? What curriculum materials, if any, should be structured and sequenced? In contrast to other employer-based models, RBS elected to start with a relatively tightly structured program and to introduce more flexibility over time. Thus, the present model imposes less structure than a traditional high school program but more structure than many alternative school programs.

In summary, then, a preliminary version of an employer-based career education model is now operational in a private school in Philadelphia. It consists of a number of courses in General Education, Explorative Education and Specialized Education. The program is under continuous revision as operational experience accumulates.

Propositions

The early efforts to define and develop a model at RBS have led to certain propositions about the nature and meaning of employer-based career education. A variety of serious problems have also been encountered and many are yet unsolved. Beyond generating propositions or attempting to solve problems, a favorite pastime is speculating about the future prospects of the model under development. The latest collection of propositions, problems and prospects is reviewed in this section.

1. Career education is a complete educational program designed for students with a wide range of characteristics and interests. It is not a training program, or a vocational education program, or a program for the non-college bound. Neither is it designed for black inner-city students, or white suburban students with low IQ's. Instead, career education provides a highly individualized form of education that accommodates to the needs of all students and attempts to relate their education to their future life and career.

Training is only one part of career education. The acquisition of occupational entry-level skills is not the primary objective of career education. Career education provides for the acquisition of such skills, but the goal is not to prepare every student for an entry-level job after graduation. Effective education for a career goes far beyond occupational skills to enable students to live a productive and satisfying life.

In the same vein, career education is not an additional or alternative tracking system for students. In general, three tracking systems exist in American education: academic, general, and vocational. Career education is neither a fourth track nor a substitute for one of the existing three. The ultimate objective of career education is far more ambitious; it attempts to refocus the entire educational system on a career orientation.

2. Career education, even when conducted by employers, is not a radical departure from existing forms of education. The U.S. Office of Education stipulated a number of constraints on the development of an employer-based model: it must provide for the needs of all students; it must allow students to return to a traditional school setting; and it must provide for both college-bound students and those who intend to enter the work force. While these constraints closely reflect the mission of career education, they also force the developer to observe many of the standard educational practices such as academic crediting in terms of Carnegie units, course selection with a view toward college admissions, and training programs for entry-level skills. The net effect is a program that addresses many traditional content areas in unusual environments, with different kinds of instructors and using new techniques. Thus, much of the content and many of the procedures used in career education can be found in other educational settings. The combination of these program components into a coherent whole is the nontraditional aspect of career education.

3. The ultimate success of employer-based career education depends on changes in educational folklore, custom and law. Some examples of educational ideas and practices that are in conflict with a career education mission are:

A. School is a building with definable space that is the locus of all meaningful learning.

B. Students can learn only from someone who has taken educational courses and is a certified teacher.

C. Earning a degree from a high school, college, or graduate school signifies the amount and kind of education that one possesses.

D. Academic credit must be supervised and certified by the educational bureaucracy.

E. Outside of the educational community, there is no interest in assuming responsibility for education and very little to offer to education.

4. An employer-based approach holds enormous potential for meeting the ultimate goals of career education. A large part of education for careers involves study of the world of work and only employers can supply up-to-date and directly relevant training. Non-industrial employers, particularly public agencies and non-profit institutions, are uniquely equipped to help students learn the skills needed to use leisure time, cope with marriage and family life, relate with others, assume community rights and responsibilities, etc. Moreover, employers of all kinds are beginning to recognize an obligation to contribute to the educational process.

The vast potential of employers for providing career education has never been fully exploited or even systematically explored. Most employers are uncertain about the role they might play in the educational process; communication between educators and employers is typically poor; administrative and legal barriers sometimes hinder close cooperation; and some employers are unable or unwilling to risk financial loss. Therefore, a central problem of the present effort is to explore the extent to which employers can contribute to education.

5. There are as many reasons for employer participation in the program as there are employers willing to participate. Some employers recognize an obligation to contribute to education; others are motivated by public relations; and still others are influenced by a strong appeal from the local Chamber of Commerce. Tax credits, financial reimbursement for expenses, the possibility of getting better-trained employees, the belief that business can educate students better than schools--all play a part in the decision of some companies. It remains to be seen if any or all of these factors have sufficient holding power to sustain continued interest in the program.

Based on experience to date, RBS believes that it can recruit employers in sufficient quantity and of sufficient quality to develop and implement an effective program. Nevertheless, the task of gaining commitment from employers has been far more difficult than originally expected. Many employers are reluctant to take the leap in view of the risk, available incentives, existing law, and established tradition and folklore. The challenge afforded by the model appears to be too much for some employers.

It appears that employers as a group are not willing or able to provide a total education experience for students at this time. Their participation and involvement in a total educational experience must be increasingly phased-in over time. Although practically all of the learning activities may eventually be located in employer settings, a central learning facility is still needed in order to compliment and supplement the student's learning experiences in employer settings.

6. Career education presents an exciting opportunity for progress toward curriculum fusion and program integration. Curriculum fusion and program integration are not easily accomplished as past efforts have shown (e.g., Dewey, core curriculum, team teaching). Even so, the concept of career education implies a unifying force and direction to the entire educational process. A major priority is being given to describing and operationalizing the relationship between different domains and areas of knowledge within the context of education for careers.

Exploration may be the pivotal point for integration and direction of a student's program. In the long-range development plans, exploration is viewed as a vehicle for fusing the largely academic learning in General Education and the vocational training elements in Specialized Education. The student might be guided through a series of career exploration experiences with his academic learning and vocational training related to the career area under study. As students crystalize their career plans, their full program might concentrate on the development of all skills that are related to their field of interest. In this sense, exploration appears to be the fulcrum of the entire program.

Another approach to the integration of a career education program is through the guidance and counseling activities. Even with curriculum fusion, a strong student personnel system is needed to schedule, manage, and individualize the program according to student needs. All of the traditional student personnel functions (e.g., admissions and records, assessment, student activities, and counseling) must be reconceptualized in light of the employer-based mission. Of prime importance is an underlying rationale for counseling activities. A decision theory model seems particularly relevant since career education demands a continuous effort to develop student decision-making capabilities particularly with

reference to career choice. The guidance and counseling program in career education will play a central role.

7. For some segments of the educational community, career education is viewed as a vehicle for the delivery of dollars into various coffers. Career education has quickly become a magic phrase. A great deal of publicity and considerable sums of money are associated with career education projects throughout the country. The combination of publicity and money leads to some unfortunate consequences. Politics and pressure tactics become commonplace.

Simply put, many people want a piece of the dollar action with or without regard to what they can contribute to the effort. RBS has experienced some very subtle and not-so-subtle demands, even threats, for sub-contracts, consulting fees, and purchase of supplies and materials. Hucksters of instructional materials and concepts, some school employees and officials, and some self-acclaimed community representatives are in the group that sees career education as a potential economic and power base for their own gain. It is impossible to avoid this group and difficult to confront them.

8. An employer-based model holds strong implications for contributing to public education in the future. There are many potential uses for an employer-based model. The model could be adopted by public school systems as an alternative high school for their students. This approach might benefit over-crowded school districts by decreasing the daily demand on the use of limited school facilities. The model might also be adopted in part by school districts, especially as a refinement for a cooperative education program. A local school district might also consider the model as part of an urban development project. School and business facilities could be housed in a joint location with the school utilizing the business facilities and personnel as part of their career education program and the business utilizing the school facilities for personnel training and continuing education programs.

The curriculum materials and techniques developed in the project could be used by individual schools to supplement existing instructional programs. Some examples might include new techniques for certification of student achievement and curriculum materials that integrate academic learning experiences into employer environments. Students could receive the necessary documentation of skills for access to further education with most or all of the learning taking place in non-school environments. This approach could contribute to the spread of "open learning" systems.

A basic contribution of the project with strong implications for the future is the direct involvement of employers in the

planning and development of educational systems. This development may lead to greater participation in educational decision-making and to a closer relationship between societal and educational planning.

9. The design of a model of employer-based career education can be viewed as a research study, a developmental effort, or a demonstration project. The present focus is almost exclusively on the demonstration aspects of the project. The full resources of the project to date have been directed toward establishing the academy and providing an effective program for its operation. Curriculum development, at least in the traditional sense, will not be undertaken until the academy program is established and operating smoothly. The sole objective of the evaluation is to suggest program improvement; formal research studies will not be conducted during the first year.

Although the intent is to emphasize curriculum development and research at later stages in the project, it may never prove possible to accomplish all of the objectives of a research, development, and demonstration project. A number of weak areas have been discovered in the curriculum model and RBS hopes to mount a long-range curriculum development effort to fill these gaps. Many important research questions will require intensive study. These activities will make serious demands on project resources that are already heavily committed to the operational program. A very careful balance of project resources is necessary in order to meet at least the major objectives of the project.

Summary

What, then, is employer-based career education? It involves employer participation in determining educational policy. It means that a significant part of the educational process will involve intensive study and active participation in the world of work. And it implies that most of the education process will be conducted by employers at employer locations. Above all, it is an experiment designed to examine the extent to which employers are willing and able to contribute to education.

Reaction to Tenets from State Department Point of View

By Charles H. Buzzell*

My function today is to react to the two tenet papers as a representative of yours. I'm going to mix that challenge with my own biases and call myself an educational manager. An educational manager is a person who, with the assistance of a staff of specialists, tries to make some determinations among unlimited wants and has very limited resources. I'm going to try to fracture this presentation into three parts. The first part is that of definition (my colleagues seem to have the same problems as some of you in the audience do), second, the role of vocational education in general, and finally, the role of the vocational education teacher trainer and the teacher of teacher trainers.

As for the definition: as a manager, I find it throws me into considerable consternation to have someone say, as was said in the second paper, "I don't know what I am doing, I don't know where I am going, and I don't know what I'll look like when I get there." As a manager, I tend to accept that and disregard it as ineffective and ineffectual to the operation. To find that Commissioner Marland would not define the term career education because it is an emerging concept, and then to find that he goes about defining it by what it is not (i.e., "It is not vocational education!"), and then, in the end, to discover he informs us what is expected of career education throws me into utter consternation. In order to survive in the Commonwealth of Massachusetts, we have had to make reasonable choices among the unlimited requests for the limited resources at our disposal. Such decision-making compelled us to adopt a definition of career education. We accepted the notion that it is to be all things to all people. We based this on the fact that the educational system embraces many protagonists and a variety of interested publics and it has many different roles. There is not only the learner, but also the parents of the learner, the legislators, and the consumer of the learner's product achievement--his skill, knowledge, attitude, and understandings. These various publics assume certain expectations of you and me, and as long as our efforts parallel those expectations, we're the "good guys." The day that our efforts or the results of our efforts do not come to grips with these expectations, then

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we are the "bad guys." There have been many other sectors of society that have produced ripples ahead of us--the family, the church, higher education. If one examines the frustrations in our society, one could see that these are the sectors of our society that have indeed failed. I am convinced that you and I have a role to play. I'm further convinced that it's incumbent upon us to define that role explicitly and in such terms that these interested publics can measure our performance. Then you and I will stand or crawl, based on how well we meet the performance level and achieve those goals that we said we could achieve. If we make the mistake of appearing to be all things to all men, we are doomed to failure and frustration with the inevitable consequence--the resources will be taken from us.

If the educational sector is charged with the responsibility for assisting the learner in developing all the basic skills--computational skills, communication skills, interpersonal relationship skills, individual development skills, citizenship skills, and also employment skills--then I think we, as vocational teacher trainers and managers of the vocational education sector, must say to the various interested publics who are observing our performance: "Yes, our first and prime effort will be developing or assisting the learner in developing his maximum potential in the area of employment skills. And yes, there will be an echo effect on other basic skills--computational skills, interpersonal relationship skills, and so forth." This, in essence, fractures career education and isolates its elements. As members of the total educational community, we are then principally responsible for that element within the fabric of career education that will result in the employability of the individual. Then, as specialists, we can direct specific efforts, resources, and manpower to this endeavor, and we can be measured with impunity. If however, we were measured by the papers presented today, we would be doomed to failure. For example, if Charlie Buzzell and his staff were measured by the papers delivered today, we would fail and we would continue to fail because the staff is not equipped in either resources or expertise to do all things for all learners. As specialists, though, my staff is extremely well qualified to deliver certain elements of career education to most learners. That is the task that we ought to be about.

I've tried to describe the world that the vocational teacher, the vocational teacher trainer, and state department personnel could direct themselves to under the broad heading of career education. There are certain things in the elementary school that we can focus upon. I don't see my teacher training institutions that are specifically charged with the training of the occupational or vocational educator, training elementary teachers. However, I should hope that my teacher training institutions do accept as part of their role impacting upon those who are committed to training elementary teachers. That impact should enable the elementary

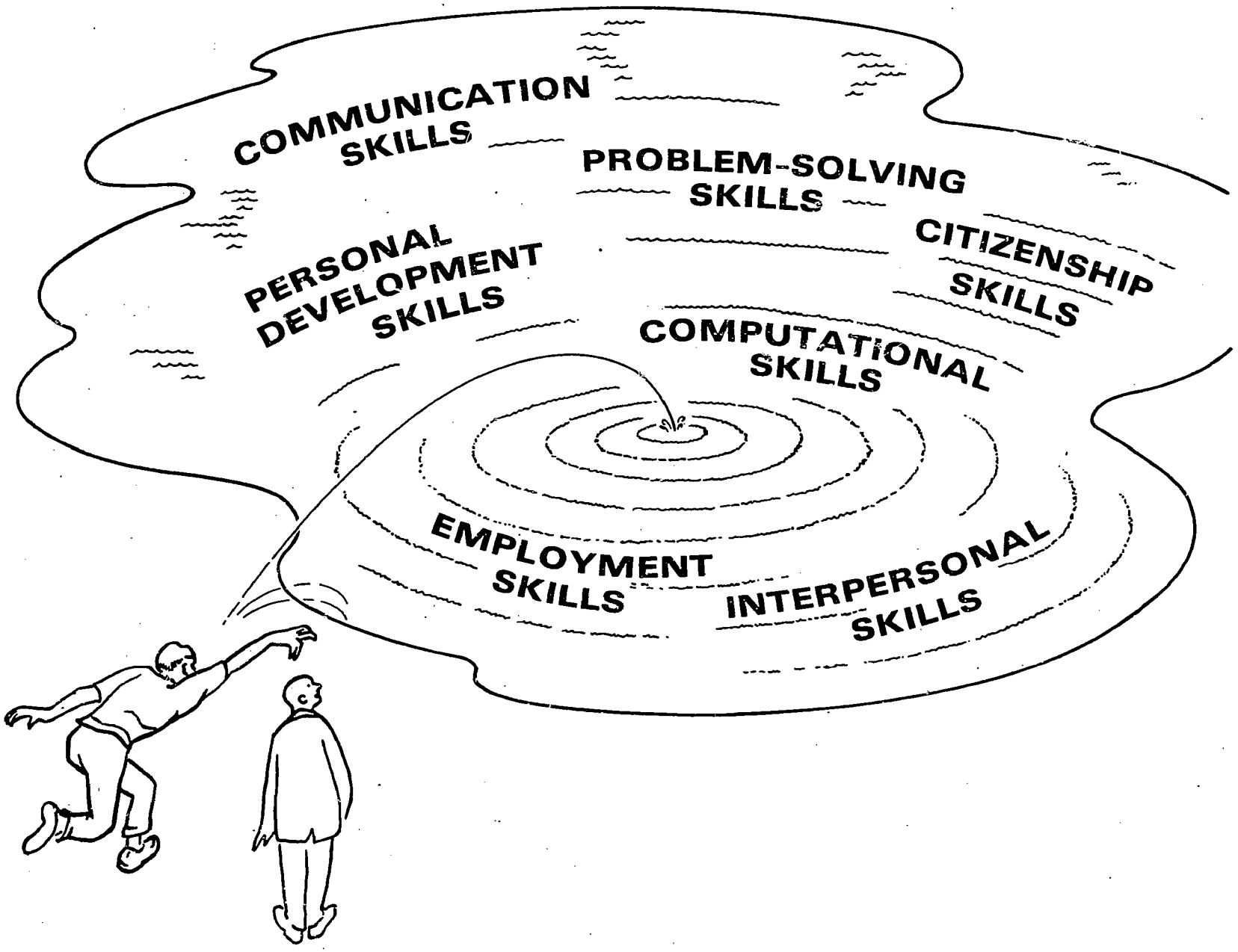
school teacher to provide the learner in the early elementary grades with certain kinds of awareness and experiences. The structure for career education can parallel the pattern of child growth and development. All of us here today arrived at our careers through the same stages of development--first, through a period of fantasy about the world of work, then through the phase of exploration, subsequently, into a stage we might call development. We now reside in a phase we can call maintenance. This developmental sequence is supported by research by men like Havighurst, Tiedeman, Ginzberg, and Super. In Massachusetts, I expect my teacher trainers to feel a part of the family and the group that works for occupational education at the state level. I look forward to their helping the elementary teachers provide in their classroom the exploratory kinds of experiences that will enable the young learner to see the world of work in a totality first, and then in large areas of specialization. But I do not expect, nor do I wish the legislators to expect, in the state of Massachusetts, the vocational educators to train elementary school teachers.

I expect teacher trainers to be very sensitive to what we have uncovered about the world of work--namely, that it is no longer appropriate to look at clusters of occupations simply in terms of job title or job classification. Take, for example, the cluster called "construction." As we examine the behaviors that are evidenced in that cluster, we find that carpenters are expected to demonstrate all kinds of behaviors that are traditionally relegated to the domain of the teacher of business education and office practice. We note that carpenters do estimating, compute taxes, take inventory, do billing and filing. These, we further note, are commonalities that are marketable, and once learned and assimilated, can be marketed to a whole host of occupations. Herein lies the key to relevance in teaching the basic concepts to all learners. If we fall into the trap of clustering by DOT classification, we're only going to be doing the same old thing with a different label. I think the employer-based model described here today will have to examine from this perspective the cluster concept very critically.

Likewise, in developing for the learner an internship or a cooperative experience, it is certainly excellent teaching practice to take the learner on a series of field trips to a variety of industrial sites--a visit to an insurance company, an excursion to a production plant, a tour of a hospital, and so on. But surely an astigmatic view of the world of work would result if you left him with the impression that each environment held confined within it totally different behaviors. It is an injustice to the learner if you do not point out to him that there are certain kinds of behavior that are identical, regardless of where we take him. Look at the behaviors-typing, filing, and billing. These are generic to a number of occupations. And they can be marketed in a number of environments. Of course, the learner must not expect, as

training becomes more specialized and more esoteric, to see someone remove a kidney in an insurance company lobby! But, surely the clerk in charge of medical records and medical files can also perform these filing behaviors in the office of the insurance firm. If, in conveying these different occupations, you talk only about disparate classifications, you've mislead the learner terribly. What we should be doing instead--and hopefully that's what the employer-based model will do--is to point out the kinds of behavior that are identical. We, the family of educators, dedicated to education, career education or career development, must be cognizant of these similarities as well as the differences. Then we shall open up for all learners a new world of options and help make their period of exploration a positive, wholesome, dynamic one.

As we hear the speakers and read their papers, and as we watch our journals, we tend to see career education in broad conceptual terms described as what we've come to understand, the role of education. It is education's role to assist the learner in developing basic skills: computational, interpersonal relationship, citizenship, and so on. But, as the speakers operationally define specific efforts, we find we are actually looking at what we've come to know as vocational education, occupational education, or in fact, career development. We find described the period of awareness, the exploration phase, the stage of development, and so on to the period of maintenance. As I see it, this specificity is our contribution to the career education design. I just hope that somewhere in this great nation of ours there are 400 other conscientious educators from other disciplines interacting about what they, too, can do for career education. Then when the day of judgment comes and you and I are held accountable for the expenditures of our resources, we can unequivocally point to those efforts that were our particular focus and show product-achievement. I said to one of your members earlier: When I walk into an electronics program, of course I do in fact expect to see a learner, the incumbent in that situation, demonstrate the specific kinds of skills, knowledges, and attitudes marketable in the electronics field. We are definitely going to be held accountable for such distinct and specific activities. These performance capabilities will be orchestrated in the total collaborative effort called career education. In that total effort, we stand alongside and among all our colleagues in the educational field, and we assist them in performing their roles. We have something important and special, unique and meaningful, to contribute to all of education. We must now clearly identify that portion of career education for which we want to be held accountable in the career development of the individual. And then, we must stand up to insure that when that accountability is examined, we are able to demonstrate the degree to which we have been successful--the product outcome that will inevitably impact on our society and the future.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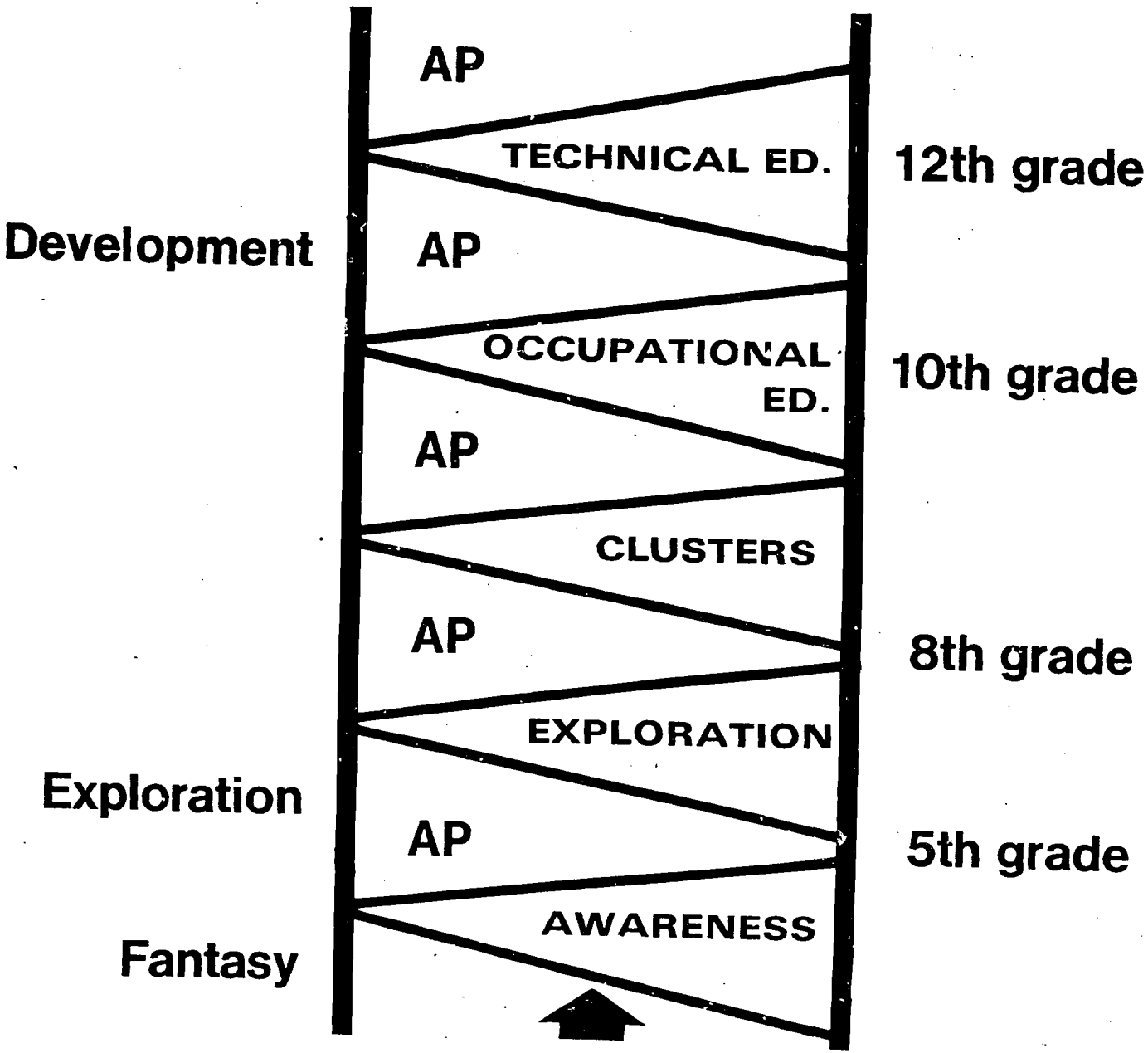
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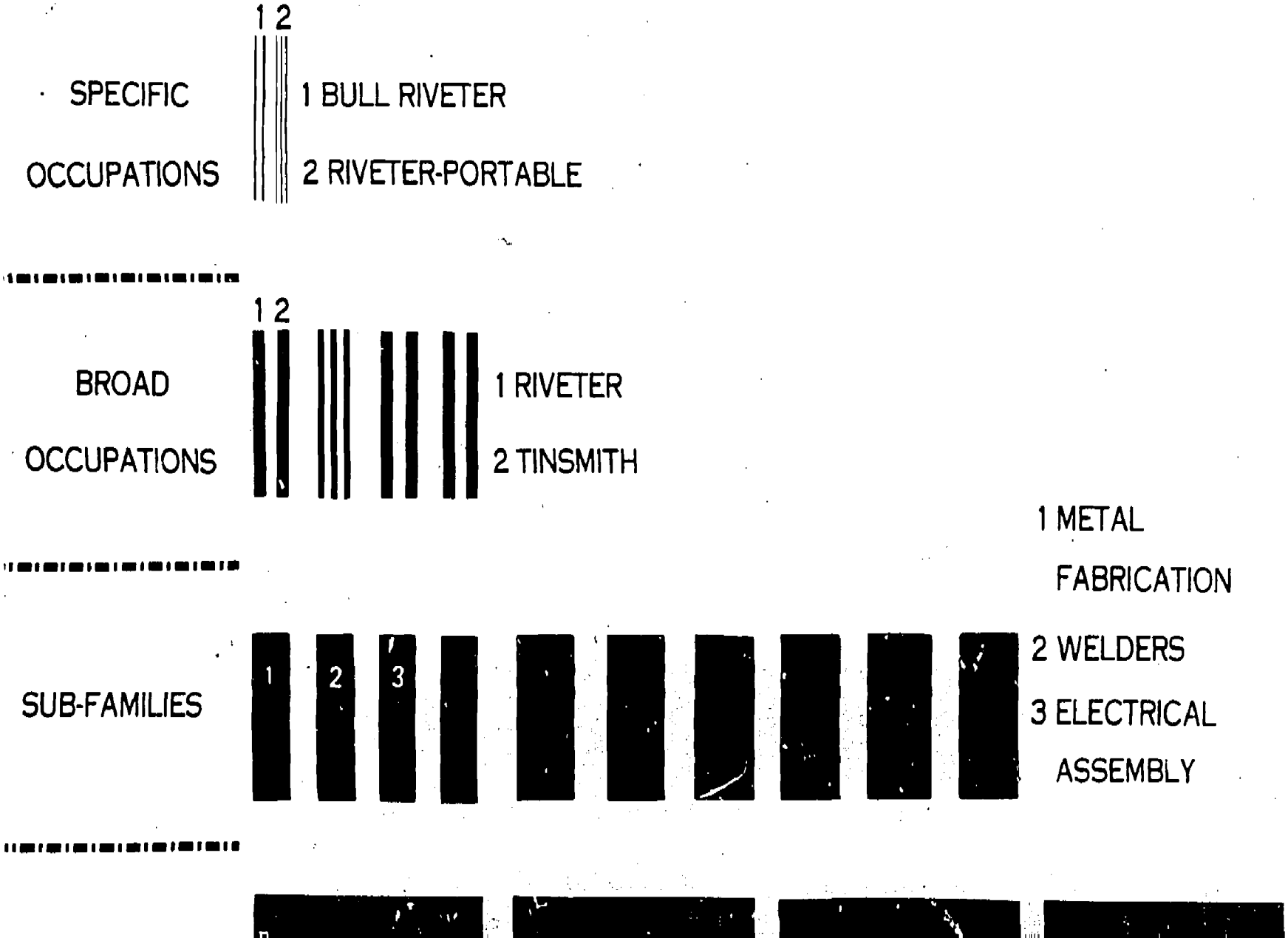
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BEHAVIORS

Reaction to Tenets from Teacher Education Point of View

By Patricia S. Kelly*

In acquiring six children ranging in ages from nine to eighteen, now eleven to twenty years of age, who are at the elementary, junior high, senior high, and college educational levels, I also acquired a wonderful source of information or "feedback system" for teacher education. In listening to the children's dinner conversation, I get ideas about what courses are relevant, which ones are a waste of time, which teachers are great, boring, dull, exciting; I doubt if the children are aware of specific educational objectives. Which reminds me of a story about an elementary third grader who came home from school with her report card and handed it to her mother with a very downtrodden look. Her mother looked at the grades of all A's and B's and said, "Why, dear, this is a very good report, why are you so upset?" The little girl, close to tears by this time, replied, "But I got "F" in sex and I didn't even know I was taking it!" This type of student feedback also informs one whether individualized instruction is being used and whether career education is being incorporated into the educational system.

Career awareness, one of the main tenets expressed in Dr. Miller's paper, is beginning to take hold in some schools in Rhode Island. As I was thinking about career education on my way to work one morning, I tuned in to a song that was playing on the car radio. It was being sung by Frank Sinatra, the idol of the teenagers when I was in high school. The title was "That's Life". I'd like you to listen to a few bars of that song. Would you please pretend that you're hurrying to work, you're late, you're not sure which parking lot you're going to be able to put the car in, and you're afraid you're going to be late for class. [*song played*]

At first when you hear that song you might think of the love theme, but after being exposed to career education, I thought, my goodness, "career awareness." How many jobs or careers have I held, up to date? Thinking it over I came up with twenty. How many jobs or careers have you had? I asked this question of twelve

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teachers in a graduate class. Among the thirteen of us we had had 118 jobs. As a human resource, I guess we know a lot about quite a number of jobs because we had experienced them. We had been involved; but, it had not been the educational system that had supplied us with the information and experience representing that part of the world of work, which is Dr. Miller's tenet No. 5.

I felt that the implications of the tenets of career education would be more realistic if I could get some personal feedback from the personnel in Rhode Island who are actually involved in career education projects. One career education project, funded at $112,000 for a three-year period and directed by Ed Melucci, is being carried out in Pawtucket, Rhode Island. I visited the two elementary, the two junior high, and the one high school involved in the project. These schools are in the heart of the inner-city and the model city project area. I spoke with each principal, assistant principal, career director, teacher, teacher aide, and some of the students. They had accepted in theory the tenets as expressed by A. J. Miller, and they were putting into operation the first three.

These were: (1) career education is a comprehensive education program focused on careers; (2) it involves all students regardless of post-secondary plans; and (3) career education involves the entire school program and unites school, community, and employers in a cooperative education venture. The directors and advisory staff felt that some of the crucial factors in getting the program started were: commitment on the part of teachers; communication, especially monthly meetings for progress reports; evaluation and setting goals for the next month; flexible scheduling; evaluation; and a realistic budget. The elementary schools seem to be having less difficulty incorporating career education into the system than the junior and senior high schools. The teachers and teacher aides were very enthusiastic.

A few examples of how community resources were involved in the career education program are given next. Workers and employers from the community were resource speakers. These speaking activities were followed up by visits to those places of employment. Buses were provided for these special field trips. One speaker the youngsters talked about was the fellow who runs the jackhammer (I guess that's what you call it) on road construction and he is always out there making a lot of noise. One thing that he told the children about that job is that when you go home at night, your body is still shaking in an up and down motion. Another resource speaker was the disc jockey from the local radio station. The junior highs were giving stress to career exploration and skill development. The high schools were involved with intensive training programs for seniors in diversified occupational areas and in work study programs. These are not as intensive as mentioned by Dr. McGuire, but it was a beginning. School administrators were

overwhelmed by the cooperation being shown by the community and employers. However, what will happen when all the schools start sending their children on field trips to these places of employment and asking for resource speakers? This may create a problem in a small state like Rhode Island. The community needs to be educated in this regard.

The second career education funded project in Rhode Island is one funded for $150,000 for one year. It is in East Providence and has taken a research oriented approach with control and experimental groups of thirty students at each grade level. Danger was apparent--there were tendencies for too much testing plus the problem of career education teachers versus regular teachers. But the in-service training for these teachers has implications for teacher educators in vocational and technical education. A six week summer intensive training workshop for six graduate credits, for which teachers and guidance personnel were paid to attend, was given; this workshop included the following: orientation to career education, overview of career education, the occupational cluster concept, developing activity modules for career clusters, writing behavioral objectives for each activity, use of contracting and individualizing instruction, use of media and resource centers, and use of community resources. When this workshop was over the teachers were convinced that career education was an important concept to infuse into their educational system and are putting it into operation this year.

From the hands-on experience of seeing career education projects in operation in Rhode Island and hearing the in-school-based model tenets as expressed by A. J. Miller and the employer-based model as discussed by Louis McGuire, I would suggest the following implications for the preservice level of teacher education: (1) career education emphasis in all teacher education programs, not just vocational and technical education; (2) work experience in addition to student teaching; and (3) work/study programs (For example, each perspective teacher could investigate an occupational cluster through a work experience or work/study program and analyze it from the beginning rung of the ladder to the top director's position. Concommitant with this activity they could develop modules for career education to be used in the classroom.); (4) competency and interest in working at the elementary and adult level. One example in home economics education at the University of Rhode Island is a funded project in home economics education called "Home Economics Continuum-Elementary through Adult." Two credit courses are offered and include fifteen to twenty hours of practicum in teaching and working with elementary students and adults. The above implications for preservice teacher education would all have to be based upon the fact that educational personnel in teacher education have been educated to do the job well. This will take leadership and funds.

The implications for in-service education might be: (1) state and university personnel need to work together in presenting career education orientation sessions and workshops; and (2) teachers need to acquire personal knowledge and experience concerning the world of work. Are teachers willing to take summer work experience or assist in curriculum development?

Several issues that do not come through loud and clear in the two presentations are: (1) The tenets imply that the teacher is one of the most important persons. She or he is responsible for the teaching, the commitment to the program, and the success of infusing the career education concept into the existing curriculum. However, not much was said about the teacher *per se*. (2) Guidance and counseling, student placement, follow-up of students, and re-education counseling have been slighted. As it now stands, schools lack sufficient guidance personnel; guidelines are needed. (3) The employer-based model has set up the academy, another type of school, with the comment that "employers can do the teaching." Vocational educators better beware; don't cop out or take a back seat. Vocational teachers must go beyond what the employer can contribute. (4) Keeping curriculum materials updated in terms of careers must be based on hard data supplied by state departments of education and universities. Curriculum materials need to be pertinent to the specific state and localities where they are being implemented.

In summary, choosing a career is a difficult developmental task that all young people must accomplish. It is the educational system as well as the home and community that must guide students in selecting and preparing for a career that meets their needs and the needs of society. When the home economics teacher who is involved with the East Providence career education project was asked the question, "What will happen at the end of this school year if there is no difference between the control group of students and the career education group of students?" Her reply was, "Oh, I know there will be a difference, in fact, I'm willing to stake my life on it! I am convinced career education will make the difference."

Reaction to Tenets from Local School Point of View

By B. J. Stamps*

I stand before you as a public school administrator knowing that most of you are teacher educators; are personnel from state departments of education and this type of thing. I'm somewhat in the same position here that I was in when I had the good fortune of going back as principal to the high school where I graduated. I looked out that first morning at the faculty meeting and saw about twenty teachers who had taught me, about ten more who fought with me and played with me while I was in school, and some more that I had taught with, and I said to them that morning as I will say to those of you whom this applies to, "I taketh my text from page 198 of the policy book. 'If you see me and know me, see me later'." You know, there were some who saw me later and we got along fairly well, so I would invite some of you, if I step on toes where you don't have scar tissue, to see me later and I will talk with you about it.

Patricia Kelly had the song in her reactions, so I just can't resist telling one more story that exemplifies career education or certain aspects of it. This happened in my own life and so I suppose I can tell it, at least part of it happened in my own life. It seems that one time I was in Miami at the American Vocational Association convention and you know at the AVA we work all the time. But one night we did go out to a hotel and they had a can-can number. While we were enjoying the can-can number, one girl slipped her hip out-of-joint and fell to the floor in excruciating pain. The call went out: "Is there a doctor in the house?" The doctors lined up on the right. You know this was career awareness! They were aware that they were doctors. I looked over in the line and I saw one of our high school principals. I said, "Dr. Bob what are you doing in that line? You are a Ph.D." He said, "Well, I can do her as much good as the doctor of divinity with her now." I suppose you would call that career exploration. But when I came back home and was telling this story to my family, my little six-year-old boy put the real career specialization on it. After I had explained to him what a doctor of divinity was, he didn't laugh at my joke. He looked at me and said, "Well, Dad, he could have been praying for her." He put the specialization where it should be.

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*Mr. Stamps is assistant superintendent, Dallas Public Schools, Dallas, Texas.

I'm concerned that the career education movement seemed to have come out of frustration. It seems to have come out of the frustration that Keith Goldhammer was talking about in his presentation, about our education system not really addressing the needs of our society, of our total society. Career education, I think, was really born out of this frustration. But the thing I am concerned about is that there is a malady in this country that tends to make us want to throw the whole thing away and start over. We rarely ever get the large push for changing some little part of education; we get the large push by saying it's hopeless, throw the whole thing out and start all over. Witness the career education model.

We have four models, of course. One is the school-based model. But then, in order to get something done, we look to the employer-based model, the home-based model and the residential model. Again going outside the educational establishment. I am sure all of you are aware, more than I am, that the labor department is running more educational institutions and more educational programs in many communities that the schools are. There is more money going into the labor department's educational effort than through our regular schools. Is this an example of saying that we are not going to be able to change the educational establishment, so we're going to have to go outside it in order to do this? I don't think career education really wants to do this.

From the signs that I see, I don't think that the industrial community wants this to happen. I don't think they want to take over our job. I think they want to help us and I think they are going to insist upon helping us. Our problem is how to maintain this fever pitch of enthusiasm with which they began the program. How can we maintain it over the long haul? Research for Better Schools is starting a project for slightly more than 100 students. They're going into Philadelphia. How can we maintain the program? How can we maintain the enthusiasm of the chairman of the board at the bank? There is tremendous enthusiasm on his part right now for the career education employer-based model. How can we maintain this enthusiasm when we start talking about 100,000 kids rather than 100 kids? How can we do that? This is the big challenge as I see it. The other big challenge is how can we maintain this when we transfer the activities from the chairman of the board down to the teller in the bank because eventually they have to get down; the chairman of the board can't deal with 100,000 candidates. How can we maintain this enthusiasm?

Teacher education, the area you are so very vitally interested in, is going through a change too. Teacher education is having the same thing happen to it as the public schools are having happen to them. Employers said to the public schools, your product does not meet our needs. In many places in this country, the public schools are saying to teacher educators, your product does not meet our

needs and we are going to start training them ourselves. There is a great deal of thought in some areas that the large public school system might do a better job of training teachers to teach in that system than an educational institution can. If I give you my bias, I would say that we need to do something in teacher education the same thing we need to do in career education and that is to unite the user and the producer of the product to turn out a better product. Isn't this what career education is all about? Career education focuses on uniting the business sector, the community, and the school into an educational endeavor to make a better system for our students.

I think we have another great danger that I see. We talk about not defining career education. We're going to let the definition come out of practice. I think we're running a great danger of talking it to death. You know, back in the '50's the big push in the school system where I taught was individualized instruction. I came into this school system after having taught four years in other places and they began to talk about individualized instruction. For about the first month or two I would look them square in the eye and say that I don't know what in the world you are talking about, nor how to do it. But after a month or two everyone was so glibly kicking the thing around (individualized instruction) that I finally reached the point that I could no longer admit to them or to anyone that I didn't know what it was and exactly how to do it. So my education in individualized instruction came to a screeching halt right there because no longer could I admit that I didn't know how. I am afraid that we are having the same thing happen to us in career education.

You know we've had so much career education in the past, yet we haven't called it career education. Career awareness in our elementary schools has been going on for a long time. We haven't had it organized. Our superintendent said when I made that statement yesterday, "Maybe, that's why it has been so effective!" You know, he might be right. We made a great mistake in thinking that we don't have any of it; it is something that we must pitch in the pot, we don't have any. We have a tremendous amount of it. The only thing that I would say is maybe we need to start doing it <u>on purpose</u> to insure that every student gets the benefit of career awareness, not doing it accidentally and hoping that every student gets it. But we've had a great deal of it.

I believe that both of our speakers this morning spoke on the delivery system. If the delivery system is the only thing that makes career education different, then I think we had better come out loud and clear and say so, because career education is being defined in this nation. You've always heard about the guy who pulled out his pistol and laid it on the table and said, "This is not poker according to Hoyle, this is poker according to me!" Well, you know, career education is a great deal that same way.

It's career education according to me, whomever the me happens to be in that community. But I think we need to define it. Maybe it's been great that we haven't defined it because if we had told the English teachers, the math teachers, the science teachers, the history teachers that this has implications for you and we are talking about changing how you teach, it might have been shot down immediately! We might have pulled so much misunderstanding and fire toward it that it would have been shot down. But I think now is the time for us to begin to say what it is so we won't get it talked to death.

I like the tenets that A. J. Miller brought out, especially the one to infuse career education into the total program. I'm sure everyone of you have lived long enough to have seen the educational priorities in a district change and anything that is not infused has a way of getting knocked out to make room for whatever the next priorities are. For no other reason than just survival of the career education movement, I would say that it needs to be infused.

I think the other one that I particularly like is that of the uniting the school, the community, the business, and industry in the career education effort. But like Pat Kelly, we didn't see anything about the teacher there, and, of course, you know better than I, that if this teacher is not enthusiastic for career education, all the material on earth is not going to help. It will not happen because I want it to happen, or you want it to happen, it will happen because that teacher believes in her heart and will stake her life on it--that it will make a difference.

You know, in the RBS model, if you picked out some of the things that Louis McGuire said this morning, they are not actually doing anything radically different. They are doing about one thing that is different, they are doing it in a different way, they are doing it in a different setting. But as I try to strip it apart and say to myself, What is it that they are doing?, the idea behind it is: (1) the community is the classroom (Now we've heard that a long time--the community as a classroom. I personally believe in it. The community must be the classroom. It's the only way that we can keep up.); (2) they took the great elements of cooperative education and work/study, and put it together in a little different way with the residency and internship; and (3) they took independent study, and are supporting the effort with independent study. The one thing that they are using in a different way, and it is not totally new but it makes more sense to me than any other way I've heard it, is the use of a voucher system. The voucher system used in the way that they are talking about it, to afford opportunities for that youngster that are unique to him, that his school district cannot afford because there are not enough students that need it or want it, makes a lot of sense to me.

If you have the opportunity to visit the Research for Better Schools Model as I was fortunate to do so this summer, you will notice that it is employer-based but educator-managed. You will notice, of course, that they set up an academic school to handle it. I would say that the only hope of the employer-based model of career education ever being effective would be that people like those at Research for Better Schools could pull it out of the public school setting, take it in to a special setting to develop it. But when they do, they must maintain their ties with the public school or wherever the big mass of students are and then bring it back into the public school. We haven't proved anything when we go out of the school with a project and spend a tremendous amount of money; we haven't proved anything. It's when we can put it back in the school and do it for the same amount of money by using the resources in a different way that will make the difference.

I can't quit without saying something about looking at ways of getting career education. It is going to take a change agent in order to get it, and, of course, each one of you knows that a change agent may not survive. You heard this morning, when Keith Goldhammer was saying our society rewards conformity and obedience, let me say our public school establishment does the same thing. It rewards conformity and obedience, so the change agent may not survive. You know we have a tendency to shoot the bearer of bad news; a tendency to shoot the person who is always wanting to do it a different way because we just got comfortable doing it this way.

In closing, I would like to share one more thing with you and that is, don't downgrade the vocational education preparation program. We talk about vocational education; career education in some places is a synonym for vocational education. I know of school districts and colleges where suddenly the vocational education department had a new name and was known as the career education department. All they changed was the name. We've said career education is not a new name for vocational education; I think we all accept this. We need to say it to a lot of people and at the same time, guard against downgrading the vocational education preparation program because I believe this preparation program is the key to career education. If I am going to become a participating member of this society, I have to have something undergirding me that allows me to do it and the only thing that I can put my finger on that undergirds me enough to stand before you today and talk is the full knowledge that I know more about what I am talking as a public school administrator (based on my own experience with my own school system) than anyone in this room. The knowledge that "This I can do well" is the only thing that allows any of us to face the world. I would ask you to witness an unemployed engineer who has suddenly been declared surplus if you don't believe this. This unemployed engineer of my acquaintance has suddenly withdrawn from all of his friends; he has withdrawn from all of his social

circles, not just things that cost money, for suddenly he is assailed with self-doubt. He is not able to be a fully participating member of our society. I would say to you in closing, career education is great, I am for it, I've been for it a long time. But let's don't go so far with career education that we downgrade this vocational education preparation program, whether it be at the high school level or the graduate school level, that enables this person to say, "This I can do really well. I can look the world in the eye because I am somebody."

chapter II

Occupational Clusters

Presentation

Career Information System for the Comprehensive Career Education System

By Walter W. Adams*

Introduction

The 1960's may be marked as the most eventful decade in recent history (O'Neill, 1971). Historians will judge, but it should be safe to say that at least for us--the participants--it was a very eventful period. Of the many concerns that emerged during this time, one that relates to education is the explosion of knowledge. In 1963, Boston University hosted a conference in which several scholars presented papers on this theme (Sweeney, 1966). One scholar challenged the idea of the knowledge explosion by pointing out the widely accepted misconception that equates knowledge with information and, further, that equates the growth of knowledge with the sheer accumulation of data. The presenter, Paul A. Weiss, stipulated that, "If one accepts this distinction, one readily perceives that this purported explosion is merely a glut of unassimilated data, rather than a spectacular breakthrough of deep insight and understanding." (Weiss, 1966) In his paper he defines knowledge as concepts, systems of thought, and principles that, through understanding, reduce the mass of data and experiences to their common denominators. I would like to employ the distinction made by Weiss, between information and knowledge, in our analysis of the educational uses of occupational information or, more specifically, to the task of defining and evaluating the advantages and disadvantages associated with alternative methods of organizing information about work for educational purposes.

Background and Rationale

The practice of grouping occupations is so common and pervasive that the existence of these schemes is hardly noticeable. In this regard, consider such areas as industry, government, the military, civil service, or fields of work like medicine--each has its own occupational hierarchies and grouping schemes used to define status, responsibility, authority, promotion, or salary. Within education, occupations are frequently organized or grouped

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in some way for instruction in vocational education or in specific subject areas and for guidance, counseling, and placement purposes.

Now, with the advent of career education, the importance of organizing occupational information has reached the unprecedented level for use within the total curriculum--there to be deliberately woven into the entire range of educational experiences. The new requirements associated with broad curriculum usage reveal the limitations and inappropriateness of most existing grouping systems. This places the responsibility for devising a new and more appropriate occupational clustering system squarely on our shoulders, as career educators.

The need for developing a comprehensive career clustering system for career education was recognized early by the United States Office of Education, in efforts described by Commissioner of Education Sidney Marland (Marland, 1972). Gordon Swanson identifies occupational clustering as an essential element of a career education program. Swanson stresses the importance of adopting an "orderly system for comprehending the enormous number of occupations which may be examined in the process of accepting, rejecting, or otherwise considering an occupational choice" (Swanson, 1972).

The occupational world consists of more than 21,000 defined occupations, with many of the same occupations having variations and differing emphasis that result in endless uniqueness. The massiveness and complexity of this type of information must be reduced through grouping, clustering, or some orderly organization to render it educationally manageable and useful. In its final form, the information must be organized so it is representative of work as it occurs both in the community and society. It must also be developed so it will be appropriate to the developmental level of students at various grade levels.

The initial steps in the development of the Comprehensive Career Education Model (CCEM) clustering system consisted of contracting with the Human Resources Research Organization (HumRRO) to locate or design an occupational clustering system suitable for career education. Our contract with HumRRO specified three general criteria. They were that the clustering system: (1) must encompass most existing jobs, (2) must be translatable into the design of an entire K-12 curriculum, and (3) must show clear and specific advantages over other clustering systems (Taylor, Montague, and Michaels, 1972). HumRRO's final report provided us with two essential inputs, first a review and analysis of existing clustering systems and, second, a proposed model of a new clustering system for career education. This information enabled us to assess the state-of-the-art and provided us with a starting point to launch our own efforts in developing an occupational clustering system.

Three additional criteria were developed after analysis of the HumRRO report. These served to guide our efforts in determining what the final clustering system would be like. The new criteria were that the system: (1) must interface with existing occupational information resources, (2) must be accessible by different users for a variety of educational purposes, and (3) must possess a substantive structure and a uniform language for K-12 curriculum design purposes (Adams and Keilholtz, 1972).

The first criterion to interface with existing occupational information resources was based upon the realization that it would not be feasible to redesign the world of work in view of the extensive requirements for information about it. Our goal is to bridge the gap between the school and work, which consists of maximizing interface with knowledge about work in our culture.

The second requirement is that occupational information be accessible by a variety of users, such as teachers, curriculum developers, and counselors, as well as students for instruction, guidance, counseling, career exploration, career preparation, and placement purposes. This criterion is based on recognition of the need to infuse a uniform and consistent interpretation of career information into all aspects of the educational program in a planned and articulated way. This is regarded as imperative to achieving continuous student growth in educational and career competency.

The third and most crucial of the new criteria relates to the curriculum concept of structure and is considered in two steps. The first consists of defining the content and parameters of the information required. The second involves determining how the information is to be structured in terms of the basic elements of work and their interrelationships.

Career Information

In light of the requirements of the CCEM for career information, it is obvious that we are no longer considering simply occupational information. Adopting the term "career information" becomes immediately more appropriate. This term is used by Isaacson (1966) to emphasize adding information about training and educational programs to information about jobs, thereby expanding the concept of occupational information to career information (Hopke, 1968). In the CCEM, use of the term "career information" represents a further expansion of the concept to include, in addition to information about occupations and educational opportunities, labor market information on occupational demand, outlook, and economics and subject matter content knowledge. The expanded definition accents, either directly or indirectly, the following important concepts:

1. Career information is essential to the conduct of career education.

2. Career information is more encompassing than occupational information.

3. Programs of educational preparation are related to the development of occupational and career competency.

4. Subject matter content knowledge is related to performance of occupational tasks.

5. Educational and occupational experiences are enriched through career information.

6. Career development is facilitated by having information about changing community, state, and national labor market conditions.

7. Career development is facilitated by having information about changing educational and occupational requirements.

8. Career development is facilitated by having information about changing economic conditions.

Career information, defined in this way, establishes the foundation for attaining the goals of career education that relate to bridging the gap between the student and education, work, and society.

The CCEM definition of career information can be further delineated to express the interrelationships of its components--occupation, preparation, labor market, and content knowledge. The basic element of the definition is occupational information. What is new is recognition that the other elements of the definition help make occupational information relevant by enabling the student to relate his career plans and present educational experiences to anticipated educational and occupational opportunities. Information about occupations must be ordered in a fundamental way to provide a base for integrating the other forms of information specified in our definition. This is a problem of structuring information about work and leads us to the next step in our discussion.

Career Information--Knowledge About Work

The problem of clustering career information is a problem of knowledge. The structure of knowledge in terms of "its connectedness and its derivations that make one idea follow another," according to Bruner, "is the proper emphasis in education" (Bruner, 1962). He further states that "the curriculum of a subject should

be determined by the most fundamental understanding that can be achieved in the underlying principles that give structure to that subject" (Bruner, 1961). Determining structure, which consists of identifying the basic elements, concepts, or principles that give meaning to information about work, becomes the logical starting point.

Parenthetically, the entire career education curriculum and instructional program is also a matter of structure and design. The overall CCEM design is described elsewhere in Aaron J. Miller's paper entitled "The Emerging School-Based Comprehensive Career Education Model" (Miller, 1972), and *Developmental Program Goals for the Comprehensive Career Education Model* (CVTE, 1972), the latter available through the ERIC system. The total program design for career education is, in effect, a superstructure for organizing, coordinating, and integrating the program components. Successful integration of these components, one of which is career information, assures the prospect of developing an articulated K-12 career education program with sequenced and interrelated learning experiences.

Approaching organization of career information as a knowledge problem leads directly to the task of analyzing the knowledge base. The *Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook I: Cognitive Domain* (Bloom, 1956) provides a useful framework and helpful direction in this matter. Cognitive behavior is arranged within the taxonomy in terms of increasing complexity. As a hierarchical arrangement, "knowledge" is considered to be the base or lowest level and is subdivided into three levels. The lowest level is "Knowledge of Specifics" (Bloom, 1956). This level describes, in terms of our concern, the overwhelming mass of specific job facts available. It is because information and data on occupations is proliferating at this level of knowledge, apart from an acceptable organizational scheme, that we are concerned about how to introduce career education into the curriculum. Resolution of the problem necessitates moving from the level of specific facts to a higher level of the taxonomy. There are essentially two higher levels of knowledge within the taxonomy that suggest how this may be achieved.

The first or next highest level that applies is entitled "Knowledge of Ways and Means of Dealing with Specifics" (Bloom, 1956). It describes knowledge organized into classes or categories. This level is probably most descriptive of present efforts to organize or cluster information about occupations. Typical modes of organizing information include classes, sets, divisions, categories, arrangements, and clusters developed for a given subject, purpose, or problem. An important factor to recognize is that the reasons for organizing information at this level vary and are frequently specific and narrow. The categories or classifications developed tend to serve the interests of those in a specific area

or discipline and are difficult, if not impossible, to apply in other areas or to expand for wider use. In the area of our concern, schemes for organizing occupational information are typically geared to themes such as vocational interest, occupational information filing plans, subject matter, staffing arrangements, or funding [illegible].

Analysis of existing occupational clustering and grouping arrangements did not reveal any clustering scheme that met the information requirements of the CCEM (Taylor, Montague, and Michaels, 1972). Our alternative was to develop a new clustering arrangement that could have been designed to meet specific curriculum requirements for occupational information, or could have been designed basically enough to meet the information requirements of all components within the career education program, as well as providing a base for interface with the community in terms of employers and relationships with other institutions. The second of these options is discussed next.

The highest level of knowledge in the taxonomy is "Knowledge of the Universals and Abstractions in a Field." This includes knowledge of theories and structures in the sense of identifying "the body of principles and generalizations along with their interrelations to present a clear systematic view of a complex phenomena, problem, or field" (Bloom, 1956). Organization of career information at this level correlates with our concern for structure and establishing a comprehensive knowledge base for a career information system.

The implications of this analysis are that the requirements for career information, created by the growing importance of career education, taken together with the increasing inundation of specific facts and bits of information about occupation, must be resolved by either adopting or developing a special purpose clustering system or by attempting to identify the basic structure for information about work. Both alternatives serve to order and arrange career information and reduce and eliminate overlap and redundancy. The positive educational features that occur in selecting the alternative to structure knowledge about work are succinctly stated by Beckner and Dumas:

> Viewed as strictly as possible from the position of a theory of learning, Bruner's structural emphasis may be summarized in the following three propositions:
>
> 1. Learning occurs when isolated elements of 'knowledge' are so organized, connected, or arranged as to allow them to take on meaning for the learner.
>
> 2. Further learning is facilitated by the perception of an organized, meaningful pattern into which new experiences may be integrated easily and quickly.

3. Self-discovery of the unifying or structural elements, the 'organizing ideas,' of any body of knowledge and the organization or reorganization of these into larger patterns in order to discover larger meanings, serves as a powerful reward to the learner, reinforcing the present learning and motivating future efforts. (Beckner and Dumas, 1970)

The Structure of Career Information Model

The Career Information Model (CIM) represents our efforts to develop an occupational clustering system. The CIM is a composite of several clustering and occupational information systems* that have either been adopted or modified to achieve a single integrated model. The multidimensional nature of the CIM permits maximum interface with many other clustering approaches that are based upon similar concepts or that address the whole world of work. The CIM achieves maximum interface with existing sources of information about occupations, such as the *Occupational Outlook Handbook* (U.S. Department of Labor), the *Dictionary of Occupational Titles* (U.S. Department of Labor), and local, state, and national labor market information. In addition, the CIM provides for a logical flow of concepts about work expressed in elementary terms for the lower grades to more complex and detailed concepts about work at the upper grade levels. The model provides potential for maximum use of career information by all the participants in the education process. The substantive structure of the system helps to insure proper sequence and articulation of curriculum unit content and guidance in terms of language and concepts about work. It also serves as a base for integrating efforts of the various components of the career education program and coordinating community contacts as they relate to work.

The foundation for the CIM is the occupational definitions in Volume I of the DOT, *Definition of Titles* (U.S. Department of Labor). The DOT represents the single most comprehensive and systematic organization of occupational information available within our culture. It is the legitimate base for a comprehensive career information system if knowledge about the entire scope of work found within our society is appropriate content for career education. The structure for organizing the base information for the CIM is derived from an analysis of Volume II of the DOT, *Occupational Classification* (U.S. Department of Labor).

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*The basic occupational information systems considered are: the USOE fifteen clusters; the HumRRO model; the *Standard Industrial Classification*; and the *Dictionary of Occupational Titles*, Volumes I and II: Job Definitions, Occupational Group Arrangement, Worker Trait Arrangement, and Industry Arrangement of Title and Codes.

The knowledge structure consists of the most fundamental statement of underlying principles that can be derived. This is analogous to classifying matter as basically animal, mineral, or vegetable in the popular guessing game. Similarly, the concept "work" is considered to be reduceable to a structure of Product, Process, and the Person of the worker. Product includes what is done in terms of industry. Process refers to how work is done through tasks performed, and Person describes who does the work. The latter includes the significant characteristics and traits of the worker, including such factors as interest, aptitudes, and educational development.

The occupational definitions in Volume I of the DOT serve as the information base and can be ordered or arranged in terms of each of the dimensions of the structure. This is possible because each definition includes information on the industry, tasks, and characteristics of the worker. The information base itself possesses the characteristic of being a cultural-linguistic (alphabetical) classification system, which means, of course, that if you can name it you can find it.

With the structure, one can start with a specific occupational title, find the definition and follow it through the system to determine the relationship the occupation has to industry, tasks performed, and worker traits. Alternately, one can start with information related to any one dimension of the structure and trace it back to the information base or to either of the other two dimensions.

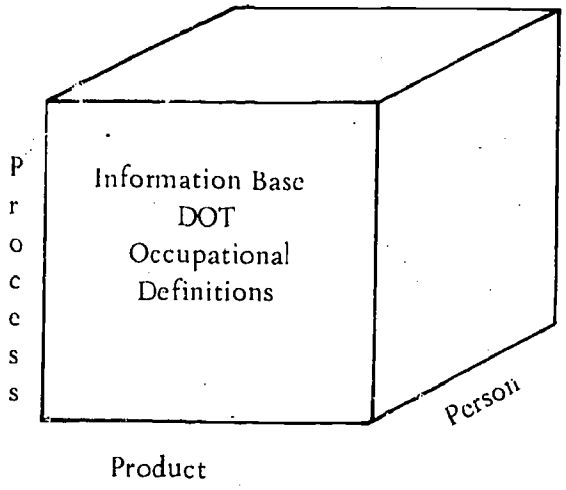
The utility of the CIM is exemplified in its adaptability. To illustrate: the Process or occupation dimension of the CIM includes information about tasks performed; as the tasks are identified, the skills and understandings required can easily be related to an external organization of information about educational preparation and training programs. Thus, the CIM serves as an important link between information about work and education. The principle of linkage holds for many other types of external information as well. Among them are labor market demand, outlook, and economics, a variety of human work characteristics, and placement and follow-up information.

The CIM is therefore more than an occupational clustering system in the usual or popular sense; it is a structure of knowledge about work that serves to integrate a number of approaches to clustering, a multiple clustering system. As such, the CIM possesses the characteristics Piaget attributes to developmental structures (Piaget, 1970). Piaget's characteristics of structure include: wholeness (in the sense of embracing all relevant information), transformation (in being able to relate and reorder information about work meaningfully), and self-regulation (in the sense of the structure having stability and direction for development).

The structure of knowledge about work is defined in the preceding manner. The initial criteria stipulated in the HumRRO contract, as well as the new requirements that emerged from our analysis of their report, are met in the CIM. In addition, by accepting the alternative to determine the structure of knowledge about work instead of devising a special-purpose clustering system the CIM addresses squarely the mass of information available and the information requirements of CCEM. The CIM provides us with both a reasonable base from which to develop career education programs and a framework to conduct required research activities.

COMPONENTS--THE CAREER INFORMATION MODEL

BASIC MODEL

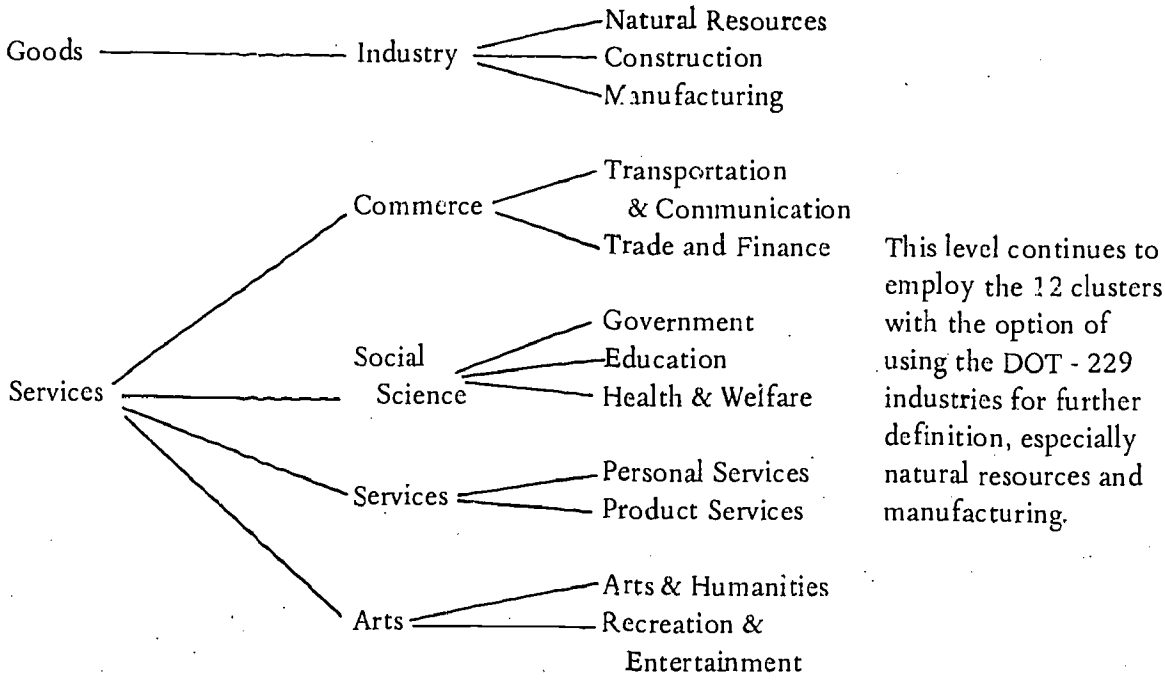


Definitions of Model Components (Adams and Keilholtz, 1972)

The Career Information Base -- The information base for the CIM consists of the 21,741 occupations defined in Volume I of the DOT. The occupational definitions constituting the base possess two essential properties. The first is that each definition is concise and includes: the occupational title, alternate titles, DOT code number, industry identification, description of tasks performed, and indication of the worker characteristics. The second property is that the information in the occupational definitions can be organized into each of the three perspectives of the CIM structure: Product - Industry, Process - Occupation, and Person - Worker Traits.

1. Product Information - Industry -- This perspective consists of grouping occupations in terms of the basic product or service provided. The groups are called industries or clusters.

Specific occupations are arrayed vertically within the CIM cluster in terms of the variety of occupations related to creating the product or service. The following diagram illustrates the CCEM industry or cluster breakdown for each set of grade levels.



2. Process Information - Occupations -- This perspective involves organizing the occupations arrayed vertically by cluster or industry into groups organized horizontally across the model. The resulting matrix serves to identify specific occupations with their related occupational groups. The grade level organization of the horizontal occupational groups is as follows:

> Grades K-3 -- Occupations in the Goods and Services clusters can be grouped horizontally by the basic tasks performed. Managers, leaders, and policy-makers can be grouped together while technicians and craftsmen or general workers and employees can be organized into separate groups based on the common or related tasks performed by the workers.
>
> Grades 4-6 -- The Five CCEM Clusters used at grades 4-6 are divided horizontally within the CIM into the nine Occupational Categories (first digit of DOT code number) of the DOT Occupational Group Arrangement (OGA).

Grades 7-9 -- The Twelve CCEM Clusters are divided into the eighty-three Occupational Divisions (first two digits of the DOT code number) of the DOT OGA.

Grades 10-12 -- The Twelve CCEM Clusters may continue to be used or expanded to the 229 Industries in the DOT. In either case, the eighty-three OGA Occupational Divisions may continue to be used or, in areas where greater specificity is required, such as guidance, placement, or career preparation, the OGA Occupational Groups (first three digits of the DOT code number) can be used. The potential in using Occupational Groups is to be able to divide the vertical industries into a maximum of the 603 occupational groups or levels.

3. Person Information - Worker -- The third, or depth, dimension of the CIM relates to characteristics of the worker such as traits, aptitudes, and vocational interests. The grade level arrangement of information on worker characteristics is as follows:

Grades K-3 -- Information about worker characteristics relates to the question, "What is the worker like?" Consideration of this question at grades K-3 would include a look at the worker in terms of personal, physical, or educational factors related to performance of the basic occupational tasks.

Grades 4-6 -- The third dimension at grades 4-6 can be considered in terms of understanding the different levels of job functioning. The last of three digits of the DOT code number indicate the relationship an occupation has to different levels of significant functions with Data, People, and Things (DPT). Learning about the different functions involved in work permits the student to assess occupational information in relation to his preferences for selected job functions. The levels of job functions are as follows (U.S. Department of Labor):

HIERARCHIES OF FUNCTIONS

	DATA (4th Digit)	PEOPLE (5th Digit)	THINGS (6th Digit)
	0 Synthesizing	0 Monitoring	0 Setting-up
Highest	1 Coordinating	1 Negotiating	1 Precision Working
	2 Analyzing	2 Instructing	2 Operating-Controlling
	3 Compiling	3 Supervising	3 Driving-Operating
	4 Computing	4 Diverting	4 Manipulating
	5 Copying	5 Persuading	5 Tending
	6 Comparing	6 Speaking-Signaling	6 Feeding-Offbearing

(Continued)

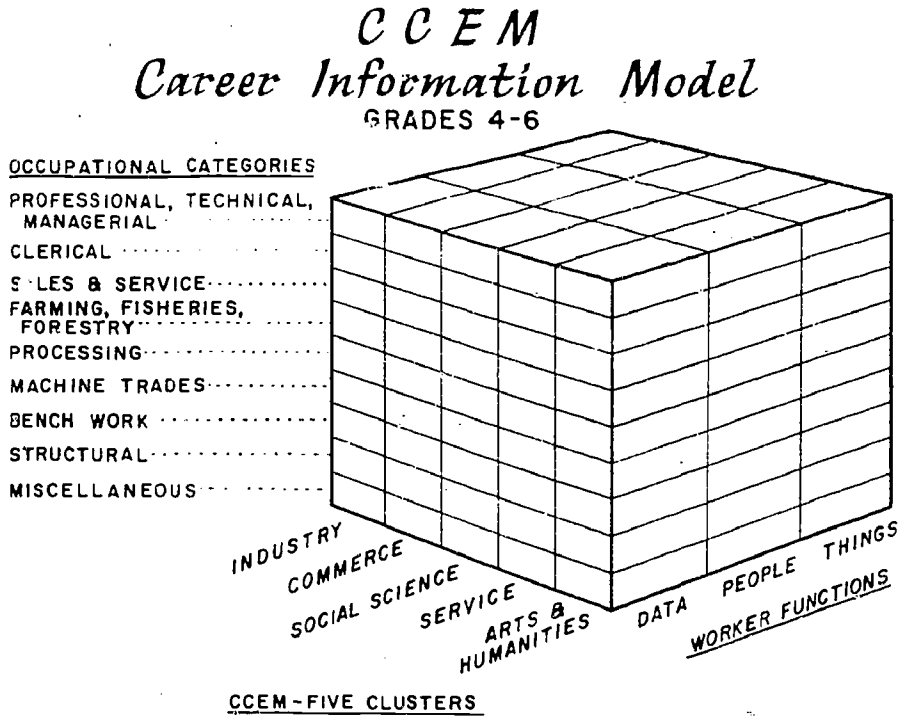
HIERARCHIES OF FUNCTIONS (Continued)

	DATA (4th Digit)	PEOPLE (5th Digit)	THINGS (6th Digit)
Lowest	7 No significant	7 Serving	7 Handling
	8 relationship	8 No significant relationship	8 No significant relationship

Grades 7-9 -- The Person dimension of the CIM can be approached at the career exploration level most effectively through the DOT Worker Trait Groups (WTG). This is an organization of occupational titles and definitions by worker traits. The WTGs represent occupations that are grouped together because of the similarity of their relationships to DPT and common trait requirements found in the WTG Qualifications Profile (QP) The QP is composed of estimates and/or actual measures of the trait requirements (Crites, 1969). The requirements are expr ssed in terms of the level of the trait necessary for satisfactory or average performance of the major occupational tasks (U.S. Department of Labor). The QP includes estimates or measures of General Educational Development (GED), Specific Vocational Preparation (SVP), aptitude, interest, temperament, and physical demands. The most useful information will probably include DPT, interest, and aptitude because this permits the student to assess the WTGs. The descriptions in the WTG include Work Performed, Worker Requirements, Clues for Relating Applicants and Requirements, and Training and Methods of Entry. In addition, specific occupational titles are found on the pages following each WTG description.

Grades 10 12 -- At the career preparation level, information of a more definitive nature is available within the Worker Trait Arrangement (WTA). As the student becomes more proficient in stating and describing what he has learned about himself in more precise terms, he can use this information in evaluating and determining career preparation options.

The diagram on the following page illustrates the CIM at grades 4-6 and shows how the dimensions of the model relate to each other in terms of the basic structure. The components of the CIM as illustrated in the diagram show how the dimensions of the model relate to each other. Graphic examples can also be developed for the other grade level ranges (K-3, 7-9, and 10-12). An important consideration is not whether the dimensions of the CIM are orthogonally related as depicted in the cubistic model, but whether the dimensions constitute a valid structure of knowledge about work.



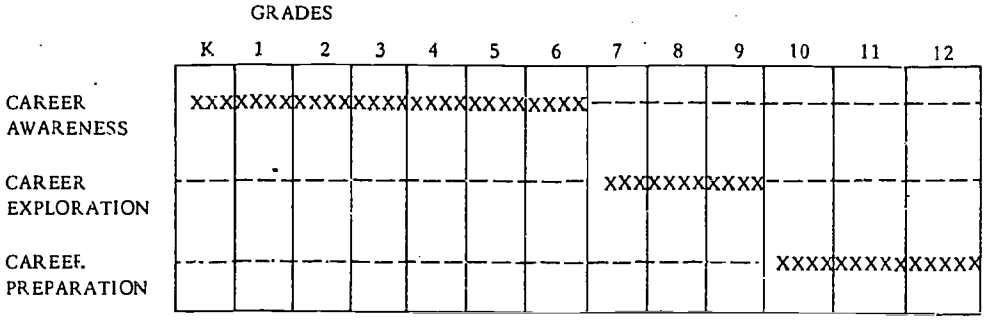
CCEM-FIVE CLUSTERS

If so, we are provided with a means of organizing career information and giving it substantive meaning. The next step is to describe the relationships of the CIM to the overall CCEM design and to indicate how the system can be operationalized in the form of the Career Information System (CIS).

The Career Information System

The CCEM design identifies major emphases within the overall career education program (Miller, 1972). The major thrust of the program changes for selected grade ranges in the model, giving direction for program development and delivery of career education through curriculum and guidance. The following diagram shows the major developmental emphases of the CCEM design.

CAREER DEVELOPMENT EMPHASIS IN THE CCEM



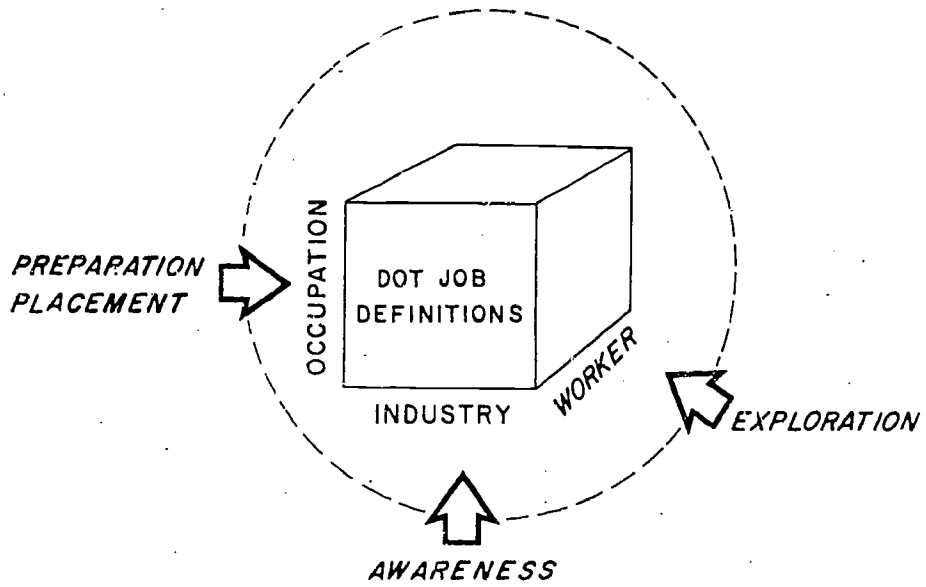
At grades K-6 program focus is on development of career awareness. The primary emphasis at grades 7-9 is career exploration, while at grades 10-12 attention is given to career preparation. At each of these levels the overriding objective of the program is to provide students with educational experiences related to the design. The question now becomes, How can career information be organized to support and improve achieving the objectives of the design?

Career awareness aims at development of a broad base of general understanding about the world of work. This includes developing basic concepts and related vocabulary about work in terms of products, tasks, and workers. Career exploration at grades 7-9 focuses on extending the breadth of understanding about work and providing in-depth experiences, especially in those areas considered to be important by the student. The career preparation level of the model is to be designed to provide students with opportunity to develop specific skills and understandings necessary for career placement in either an entry-level occupation or the next step of preparation related to their career goals.

Implied in the foregoing description are extensive requirements for career information. The requirements are different for each level of the model. This means that for awareness purposes information is needed to help develop broad understanding about work. At the exploration level, information is required to help students interpret their experiences and relate emerging understandings about themselves to knowledge about occupations or broad areas of work. The requirements at the career preparation level include having information about specific occupations, preparation requirements, related instructional modules, courses and preparation programs, post-secondary educational programs, and placement opportunities.

The dimensions of the CIM relate to the CCEM design and information requirements. In the discussion of the CIM, each dimension of the model was shown to have a level of information appropriate for each of the grade ranges. Now we are interested in relating a basic aspect of the structure of work and its corresponding dimension in the CIM to each of the levels of the CCEM design. This involves the determining dimension of the CIM that relates to the major emphasis of the CCEM design and utilizing it as the basic framework for organizing career information for that level of the model. The fact that the dimensions of the CIM are coordinated and interrelated help to guarantee a balanced approach to career education at all levels. In this regard, all of the dimensions of the CIM are useful at each level of the CCEM design, even though one is selected as the primary mode of organizing career information. The diagram on the following page illustrates the relationship of the CIM and the CCEM design.

INTERFACE: CCEM DESIGN AND CIM



The following discussion relates to possible modes of organizing career information in relation to the CCEM design. The suggestions made here pertain to developing the actual content of the Career Information System (CIS). At the present time, content for the lower grade levels is in the process of being developed. At the higher grade levels the content will in all likelihood be developed or consist of appropriate commercial materials in both hard copy and data base form for computerized use. These components of the CIS (grades 7-9 and 10-12) will not be developed until further conceptualization is completed for these levels of the CCEM. Discussion of the CIS for our present purpose is limited to the organization of the K-3 and 4-6 levels.

The focus of career education at grades K-6 is career awareness. The unique information requirements at this level are associated with developing breadth of understanding about the work, through an organized curricular approach. This requirement can be met through an organization of career information by the Industry dimension of the CIM. The CIS for grades K-3 and 4-6 is described as follows:

1. At grades K-3, the content of the CIS is organized by Industry - Goods and Services. It consists of occupational briefs (11" x 14" cards) filed alphabetically within two clusters. Each card is labeled with the occupation and cluster titles. The front of the card has a drawing of the worker performing a basic job task(s) with a simple definition of the occupation. The reverse side of the card consists of three sets of statements in

large print, with key vocabulary words underlined. The statements are grouped by Industry, Tasks Performed, and Worker Characteristics. It is expected that the CIS will have approximately 130 to 190 representative occupations in the K-3 kit.

2. At grades 4-6, the CIS is organized by the Five CCEM clusters. The content of the CIS will consist of single page briefs developed for each occupation. The briefs are expected to be color-coded by cluster and organized within each cluster by DOT code number (first digit). Each brief will have the occupational title, cluster identification, and a sketch of the worker performing a major occupational task(s). The basic occupational information related to the CIM structure is contained in descriptions of the related Industry, Tasks Performed, and Worker Characteristics. In addition, related subject matter content, general preparation requirements, and basic economics about the occupation will be included. It is anticipated that the grades 4-6 CIS will contain approximately 400 occupations.

Efforts to identify and develop content for the CIS have been carefully coordinated with the CCEM curriculum development process. The occupation content for both K-3 and 4-6 CIS was selected by meeting one of the following criteria: (1) an occupation and related information had to be required by a curriculum unit; (2) the occupation, if not directly covered in a curriculum unit, had to be representative of an area or level of work, as determined by the CIM; or (3) an occupation, if it is indigenous to a particular community or geographical region (such as an occupation in automobile manufacturing), had to be representative of a major visible area of work. A final consideration in regard to content is to make provision for teachers and local curriculum developers to add new content to help them localize the CIS content and add support for infusing career education into other curriculum units and class activities.

This is our progress to date. Opportunities for research and development in this area are numerous and promising. The potential contribution to American education is great, especially the emerging form--career education. Knowledge about work organized in a basic integrative way is regarded as an important aspect of the total CCEM. The proper blend of knowledge about work, with the body of content knowledge already the "stock and trade" of education, and knowledge of human growth and development are our most basic resources. The task is to transform them into validated educational programs. The first step of the transformation process is conceptualization--that is where we are. The next step is to operationalize the program through research and development- that is where we hope to go.

Summary

In the course of this discussion, the task of clustering occupations or occupational information for educational purposes has been considered from the point of view of the CCEM. Initially, attention was called to the larger issue of whether to define occupational clustering as essentially a problem of information or knowledge. The implications of defining occupational clustering as a problem of knowledge led to consideration of special classification schemes and structuring as alternatives. In this examination, preference was given to structuring knowledge about work as the most practicable way of meeting the information requirements of a comprehensive career education program. The concept of occupational information was expanded to career information and the Career Information Model developed to correlate with the structure of knowledge about work. The developmental features of the CCEM design were considered as they relate to the CIM, and the resulting interface provided direction for development of the Career Information System. Aspects of the CIS are now in development, and implications for its continued development are inherent in the structure of knowledge about work and the CIM. We hope we are approaching the point where efforts can be initiated to validate these concepts through research.

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Presentation

Occupational Career Clusters the Oregon Way

By Monty E. Multanen*

Occupational career clusters play an important role in the overall concept of career education in Oregon. The following pages define that role and briefly outline the sequence of events in occupational cluster development in Oregon.

Career Education in Oregon and the Role Clusters Play

The career development process of awareness, exploration, preparation, and specialization is being implemented at all educational levels in Oregon's public schools.

Career awareness includes learning activities in grades K through six where students develop awareness of the many occupations ultimately available to them, develop awareness of themselves in relation to the occupation career role, establish foundations for wholesome attitudes toward work and society, and establish respect and appreciation for workers in all fields. In addition, students develop ideas of what career clusters they would like to explore in greater depth during mid-school years.

Career exploration includes programs in the mid-school years, grades seven through ten. At this level, students explore key occupational areas and assess their own interests and abilities. They become familiar with occupational classifications and clusters, grow in awareness of relevant factors to be considered in decision-making, and develop tentative occupational preparation plans and arrive at a tentative career choice.

Occupational career clusters offer students preparation in grades eleven and twelve. Here students acquire occupational skill and knowledge for entry-level employment and/or advanced occupational training in a post-secondary setting. Clusters are designed around common competencies in related occupations and are aimed at making a majority of high school experiences relevant to the student-selected tentative career goals, developing acceptable job attitudes, and encouraging and facilitating student

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involvement in cooperative work experience and vocational youth organizations.

Occupational specialization occurs at the post-high school level and includes programs in community colleges, apprenticeship, private vocational-technical schools, four-year colleges, and universities and other students develop specific occupational knowledge, have the opportunity to form meaningful employer-employee type relations and are provided with necessary retraining or upgrading of skills to make possible personally selected changes in the career direction of the individual.

The Organizing Principle of Oregon Clusters

Clusters provide generalized occupational training as derived from competencies common to key occupations. These occupations having similar competency requirements are grouped together to form an occupational career cluster. To possess a competency means that the worker has the ability to perform effectively the tasks required of the occupation or those preparatory to taking the next educational step in a post-secondary setting. Implicit in this point of view is a consideration of all the recognized aspects (cognitive, psychomotor, and affective) of the tasks performed.

General Model of Cluster Development

The model of cluster development begins with the overall world of work and proceeds through the steps of: cluster identification, occupational analysis to identify key occupations, task competency analysis, instructional analysis, and, finally, implementation. (See attachments for graphic presentations of the general model and the four steps of development.)

1. Identification of clusters -- The criteria for the identification and establishment of a cluster area in Oregon includes a grouping of occupations having similar competency requirements with 10,000 or more people employed in the occupational cluster group. In addition, it requires a projected expansion and/or replacement need of at least 2,000 in the next five years. The thirteen clusters currently identified are: agriculture, forest products, marketing, health, food services, construction, electricity-electronics, accounting-bookkeeping, clerical, stenographic, industrial mechanics, metals, and service occupations.

2. Occupational analysis -- The purpose of the occupational analysis is to identify key and related occupations. The

criteria for a key occupation specifies an employment of a minimum of 250 people, with a five-year expansion and replacement of 100 or more in the state. Related occupations are those with similar competencies in which 100 or more people are employed.

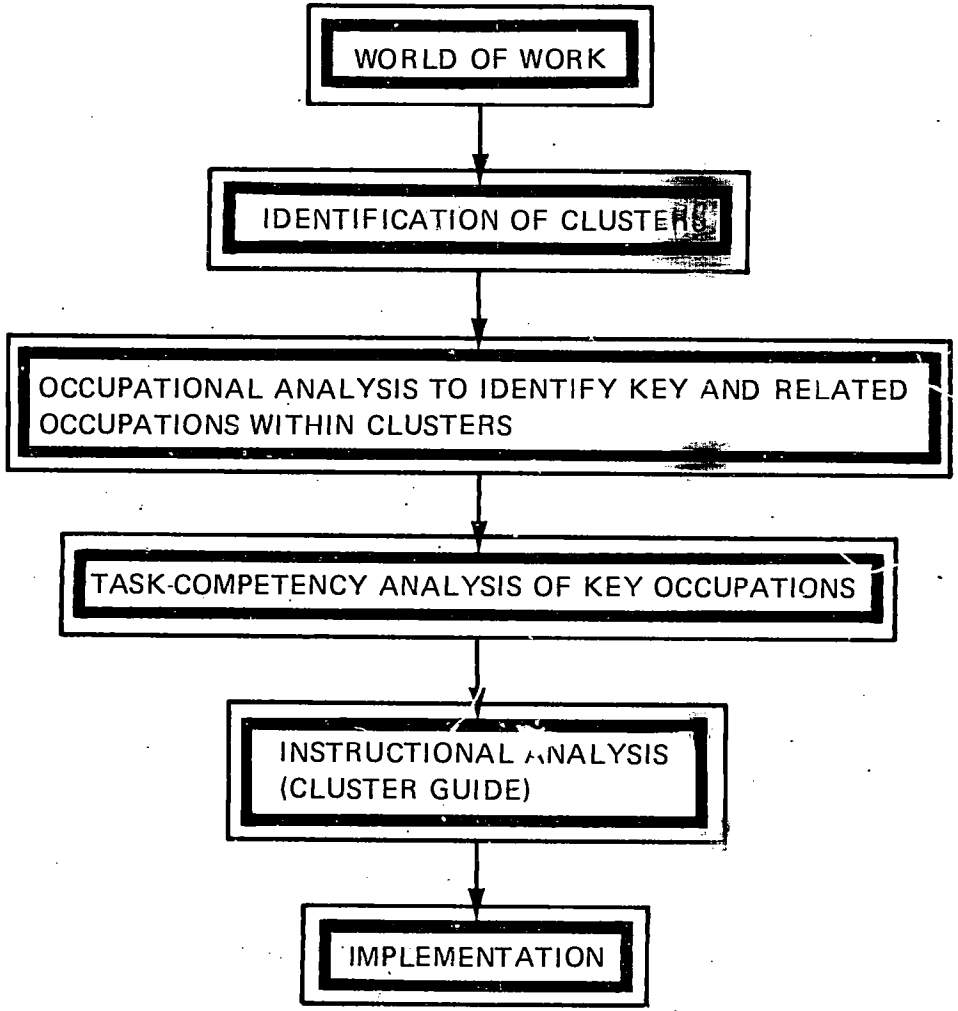
3. Task-competency analysis -- Task analyses are completed on key occupations. These task inventories are compared to identify competencies common to all the key occupations involved and to the cluster in general. At this analysis stage, the original inclusion of an occupation within a cluster can be validated on a detailed competency basis.

4. Instructional analysis -- This step involves the identification of entry-level tasks and those that should be learned in school rather than on the job. Expected behaviors are identified and objectives written based on the task competency analysis. Classroom activities are organized and curriculum materials developed to accomplish the instructional objectives.

Implementation of Clusters

By 1977, the goal of the Oregon State Department of Education is to have career cluster preparation programs available to all students in grades eleven and twelve with a minimum of seventy percent enrolled in this career preparation effort. At present, approximately forty-five percent of the students enrolled in grades eleven and twelve are enrolled in cluster curriculums.

GENERAL MODEL OF CLUSTER DEVELOPMENT



IDENTIFICATION OF CLUSTERS

Criteria

1. A grouping of occupations having similar competencies
2. 10,000 or more employed in the state
3. 2,000 or more projected expansion and replacement needed in five years

Clusters

1. AGRICULTURE
2. FOREST PRODUCTS
3. MARKETING
4. HEALTH
5. FOOD SERVICE
6. CONSTRUCTION
7. ELECTRICITY/ELECTRONICS
8. ACCOUNTING AND BOOKKEEPING
9. CLERICAL
10. STENOGRAPHIC
11. INDUSTRIAL MECHANICS
12. METALS
13. SERVICE

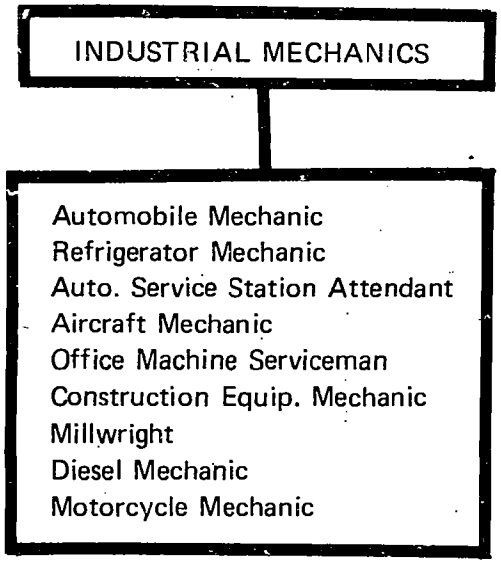
OCCUPATIONAL ANALYSIS WITHIN CLUSTER

Criteria

Key occupations. . . . Jobs with 250 or more employed and a five-year expansion/replacement need of 100 more over a five-year period.

Related occupations. . . . Jobs in which 100 or more persons are employed in Oregon and which have basic similarities.

Example



KEY OCCUPATIONS FOR TASK ANALYSIS

TASK-COMPETENCY ANALYSIS

1. Inventory tasks for key occupations
2. Analyze tasks for similarity between occupations and rank tasks
3. Determine competencies common to the occupations and the cluster
4. Validate inclusion of occupation in cluster on a common competency basis

TASK INVENTORY

Job Title

Analyst

INSTRUCTIONS:

List each manipulative and knowledge skill relating to the job noted above. To the right of each task is a series of columns asking specific questions about the entry level, level of difficulty, frequency, and type of skill involved as indicated on the sample sheet.

Block No.	Task No.	Task Description	Entry Level		Level of Difficulty			Frequency			Processes														
			Entry	On The Job	Easy	Moderate	Difficult	Small Amount	Average Amount	Great Amount	Sensing	Detecting	Manipulative Sequencing	Discriminating or Identifying	Coding	Classifying	Estimating	Synthesis	Logical Manipulation	Rule Using	Decision-Making	Problem-Solving	Measurement	Communication

INSTRUCTIONAL ANALYSIS

1. Identify tasks and competencies common to key occupations
2. Identify entry-level tasks
3. Identify tasks that should be learned in school rather than on the job
4. Identify expected behavior
5. Organize classroom activities

chapter III

Teacher Education: Roles, Programs, and Changes

Panel: Potential Changes in Professional Roles

Panel: Potential Changes in Teacher Roles

By Curtis Dixon*

According to the U.S. Department of Labor, eighty percent of our nation's jobs are currently being handled by employees having less than a baccalaureate degree. Yet for many years our secondary schools have been so strongly college-oriented that most of their effort and planning has been directed toward an academic program that has tended to deemphasize, if not ignore, many alternative and equally worthy options. Recently, however, educators have begun to speak of "a curriculum for every student" rather than selected curricula to which students are assigned. This emphasis on the individual--the very basis of career education--must, of necessity, produce many new demands for reevaluation and change of traditionally accepted professional roles in the classroom and in the community as a whole.

In the past teachers and counselors have employed a single strategy that has often forced decisions of vocational choice on students who were not developmentally ready for them. The concept of career development is a broadening of this older idea of simply matching individual characteristics with occupational requirements and is intended to draw attention to the processes through which vocationally relevant behavior is developed and expressed. Programs of career development provide students with information about many occupations so that they may make appropriate and enlightened career choices based on knowledge of general mental, physical and aptitudinal requirements and on specific preparations necessary for entry into their fields of interest. The role of the educator in this process is not to evaluate the material for the student but to suggest possible choices that may not have occurred to him and to help him face reality in selecting career goals--a process that requires close attention to and knowledge of the student's own individuality and a close cooperation between the teacher and the student and between the educators themselves.

It is likely that comprehensive programs of career education can best be accomplished by leadership teams composed of vocational educators, counselors and academic teachers who can, in close cooperation with business and industry, invest their separate talents in a program based on this concept of career development. Both

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vocational educators and counselors have unique contributions to make in promoting career development: the vocational educator's leadership potential lies in his knowledge of the world of work; the counselor's in his understanding of human behavior. However, the effective exercise of these potentials requires a fundamental change in the manner in which these two specialists are to function--specifically, the r' cement of greater emphasis on their consultative roles.

The counselor is ... to get out of his office and to become increasingly involved with the students and their activities in order that he may come to know each student as a total person rather than simply seeing him as he is revealed through test scores and grade reports. The vocational educator is urged to utilize his talents by working closely with teachers and staff in promoting the student's self-development, bridging the gap between vocational and general education and increasing the relevancy of the school experience as a whole.

Similarly, the classroom teacher in this learner-centered situation must come out from behind his podium and become a facilitator who works with learners as they become active participants in the educational environment. He must strive to assist students in determining their own educational needs. He must become a source, rather than a dispenser of knowledge; a diagnostician of learning difficulties, rather than a disciplinarian; and a teacher of self-evaluation, rather than an evaluator. In short, the teacher must develop a genuine interest in and knowledge of each and every one of his students, in order that he may counsel them wisely and effectively in whatever educational, social, personal, or occupational problems that might arise.

Comprehensive career education requires also that the teacher be both willing and able to integrate vocational, college preparatory, and general education instead of dividing these into separate compartments. This, of course, will require a considerable change in attitude and practice on the part of those academic teachers who can see little educational value in anything outside their own classrooms, especially for their more capable students. Yet if we as educators are to avoid the rigid and disjointed curricular structure that has, in the past, forced many students into hasty and virtually irrevocable career decisions and that has contributed greatly to the widespread feeling among students that their secondary school experience bears little, if any, relationship to the real world of work; it is absolutely essential that such "closed classroom" attitudes be abolished.

Teachers must strive to instill in their students a feeling of continuity between academic subject matter and personal career goals. Through continuous and extensive involvement with prominent businessmen, industrial leaders, and parents and through careful

classroom planning and inter-team cooperation, career educators must tear down the walls that have too long separated these areas and thus hindered the realization of a truly individualized and relevant program of career education.

No longer can we call that teacher successful who merely possesses the ability to "educate" his students in his own subject area. No longer can we call that counselor successful who works with students only wi[illegible] the confines of his own office. Comprehensive care [illegible] demands much more than mere competence from those wi[illegible] involves. Educators working within the framework of the leadership team must be willing and able to move beyond the professional lines that have traditionally separated the administrator from the counselor and the academic teacher from the vocational educator. This is not to suggest that such lines should be totally erased, but rather that they should be made to serve as indicators of potential service to the educational process as a whole and that members of the team should endeavor, regardless of their titles or training, to broaden the scope of their educational activities.

The classroom teacher must possess all the qualities of a good administrator as well as those of a good counselor as he schedules activities, keeps records, conducts interviews, and becomes involved with his students in the many different situations that are a part of the total career development program. Similarly, the counselor and the administrator must become even more closely involved with student activities on all levels--observing, participating, and working alongside teachers and learners to create a total involvement of all members of the educational community.

In their efforts to involve all members of their community in the career education process, team members must strive to inform parents and business leaders as to the objectives and methods of the career development concept. They must endeavor to dispell the false notion still held by many that career education is simply job training and that it is intended only for those students who "can't make the grade" in the academic programs; and they must seek to extend the field of career education out from the classroom and into the homes and business establishments within the community. Only through extensive efforts in the area of public and community relations and through the subsequent involvement of the community members can the career education team truly extend the classroom out into the community and bring the community into the classroom.

Educators must realize that career development education helps create a school climate in which the staff takes equal interest and pride in assisting each student in shaping his career life. In addition, a new basis for educational accountability results from implementation of career development education. Public

education could be held accountable for insuring that each individual chooses, prepares, enters, and progresses in activities furthering his career life. Schools would have a new reason for being--not only to help the individual to make the initial entrance into the world of work, but to progress in his career.

Finally, in reviewing the many implications of the career development concept of career education, no single ability becomes more obvious as being absolutely essential for each and every member of the career education team than does that special ability to work effectively and congenially in a group situation. Career education requires extensive coordination, cooperation, and sharing between all team members; and all team members must realize that a true concern for the individual members of the group is of vital importance not only within the team itself, but also in the classroom. Knowledge of the group process is essential in attaining a classroom climate that is conducive to self-examination and group involvement. The characteristics of openness and cohesiveness in a small group are of considerable importance in the attainment of the affective objectives requisite to career development--the exploration of self in relation to the world of work.

Panel

Potential Changes in the Role of a Secondary Teacher

By Orval L. Seaman*

For some time certain areas in the field of education have been changing. We have all been affected by many programs, some of which were the programs designed for the slow-learner or under-achiever, the programs developed for the gifted student and the college-bound student, and the programs aimed at giving people with handicaps a better chance at life. Subject matter areas were revised as times and circumstances demanded their change. However, until the advent of career education none of these revisions were directed at the improvement of instruction for all abilities and all age levels of students. With career education objectives being incorporated into the curricula of our schools, certain changes must also transpire in the roles of the educators. How has involvement in career education changed my role as a secondary classroom teacher?

The most noticeable change for me initially was the extra time I was spending planning and preparing materials. As with any new program, there was much confusion as to what was needed--I have to admit my beginning weeks in career education were confusing, often traumatic.

Three main identifiable changes in my role as a secondary classroom teacher have evolved after planned materials and procedures for incorporating their use into my classroom teaching. These changes have been:

1. Involvement in the production of relevant course material
2. Utilization of materials to help students find specific job titles and job information
3. Use of community resources in the classroom activities

"Relevant" is the big word in education these days--used almost as much as accountability. But from the standpoint of the student, relevancy is the big thing--every teacher has heard students ask the questions: Why do I need to study math, science,

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English or some other subject area? Where will I ever use this when I am out of school?

We as classroom teachers should realize that the students are really asking for a curriculum that is relevant. Dr. Aaron Miller indicated that the following questions are frequently raised concerning our public school system:

1. Why are most school courses designed for twenty percent of the students who complete a college education when eighty percent of the careers that people actually pursue do not require a college degree?

2. Why aren't 15,000 hours of school enough to prepare the average student to enter the world of work, if he chooses to do so upon exiting high school?

3. Why do people enter careers by chance rather than by design?

A student's educational development is a continuous process from kindergarten until he enters the world of work, and for most individuals is a process that must continue during his working years. As has already been stated, most school courses are not designed for preparing individuals for careers that do not require a college education, so curriculum change is a necessary process. From the knowledge and experiences of classroom teachers much can be related to the making of necessary curriculum changes so the subject areas are more relevant to their students' needs. Improvement of subject area curricula through combined efforts of subject area coordinators and classroom teachers should become an important factor in a teacher's work responsibility.

Next we come to the second change I have given--the use of materials to help students find job titles and information. Presently, most students know very few actual job titles and they know even less about the attributes of these jobs. Now I know some of you are thinking, "Isn't this the responsibility of the counselors?", and of course you are somewhat correct. But when we have the type of situation where there is one counselor for every two to three hundred students or more, we must, as classroom teachers, assume some of the responsibility of acquainting students with what the world of work has to offer. Counselors can't be expected to perform their normal work responsibilities and also keep all the student body informed of job possibilities.

Students may be able to state a few job titles in the areas of clerical work, professional work, community service work, and the occupations related to the jobs of their parents. Their familiarity with these jobs is due to contact with individuals they meet in their daily experiences who hold these jobs. There must

be methods and procedures in their classroom activities to make students aware of the many different jobs outside their realm of experience.

When classroom teachers have been asked questions related to certain job areas they usually refer the student to his or her counselor. Unless the student has a deep-rooted interest in this job area he probably has not taken the time to go through the lengthy procedure of contacting the counselor to obtain and discuss particular job information. If these student inquiries could be handled by the classroom teacher, more job titles and information would be dispensed to the student population. The classroom teacher cannot take the place of the counselor, but he can provide an answer to the student's initial job inquiry by being able to use materials such as *Dictionary of Occupational Titles* and *Occupational Outlook Handbook*. With a good knowledge of the use of these reference materials the high school classroom teacher can demonstrate to a student or a group of interested students how to use these job-related materials. The students could then use them at their convenience to find job titles and specific job information. Then if a student desires additional information he probably would be willing to take the time to contact the counselor. Classroom teachers should become familiar with materials related to jobs in the world of work.

Finally, to use a well-known phrase, let's start "picking the brains" of the members of our communities. Here is a valuable source of material that has largely been overlooked by educators. Teachers have been supplementing classroom activities by use of audiovisual materials such as films, filmstrips, overlays, and tapes, but have for the most part not made use of the many existing community resources. Some of the resources are classroom speeches given by representatives of companies, field trips to actual work situations, student interviews of local businessmen, and written educational material produced by various companies.

Many presently used audiovisual materials are outdated, do not use locations realistic to the students, and lack the impression of being a real life situation. We need to make the educational process as relevant as possible and one way of accomplishing this is to have experts from the community relate true working experiences to the students. An expert from the world of work can certainly present relevant material to a group of students in a much more realistic setting than a classroom teacher. Classroom activities related to insurances, credit counseling, lending institutions, and investments can easily be supplemented by use of local experts in these areas. Work/study programs have utilized the business world for some time and with a slight change of procedures other curriculum areas can make better use of community resources. I have found these community experts to be extremely cooperative and willing to devote time to these activities.

In conclusion, I can say that the changes in my role as a classroom teacher as a result of career education have been occasionally frustrating but mostly interesting and challenging. When we have a chance to make material used in our classrooms relevant, when we can bring together community experts and students for very pertinent discussions, and when we can do something to help students find and prepare for careers they are really suited for and interested in, then we, as teachers, are really giving our students real educational experiences.

Panel

Possible Changes in the Professional Role of a Counselor

By Duane Richins*

In discussing possible changes in the counseling role, it seems important at the outset to briefly discuss a rationale for these changes. I will attempt, therefore, to acquaint you with some of the reasons why we at Mesa Public Schools feel that change is necessary.

First, the high percentage of dropouts. Our attrition rate amounts to about six percent per year for grades 7-12 and has been increasing slightly each year for the last five years. During the 1971-72 school year, 400 students (grades 10-12) dropped school and very few of these had the benefit of counseling services due to an oversized counseling load and other "assigned duties" that preempted counselor time. In addition to the regular dropout, the number of "in school" dropouts is increasing rapidly. These are the students who have no goals or objectives and are just passing the time until they can get out.

Second, the dissatisfaction with counseling as it is expressed by teachers and students. A counselor can conscientiously work hard day after day and yet feel a definite rejection by his colleagues because they know little or nothing of his involvement with the students and of the goals and objectives he has in mind to achieve with them. Students themselves are puzzled many times as to what the counselor can do for them. To some students he is an extension of the principal; to others he is literally their counselor or their defender in truth or error, having identified his role by comparing the title of counselor with that of a legal counselor seen on TV; and to other students he is just another person in the administrative office--they really don't know what he is for, what he does, or how he could possibly help them.

Third, the feedback supplied by our "school for dropouts." Students have told us of the lack of effectiveness of our counselors and of their having little confidence in them. They also complain that many of our class offerings are irrelevant. Let me explain to you briefly what is involved in our school for dropouts. We have, in Mesa, a place in education for the student who is on the verge of receiving severe disciplinary action from the

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school. For many of those who normally would be suspended or expelled, a place is provided away from school called Opportunity Hall where they are able to continue their studies under the direction of a trained teacher who, through individual and group methods, also works at restructuring their values and attitudes toward school. There are many of these students who have given us some valuable insight into the effectiveness of our counseling program and we know we have a definite need for improvement.

Fourth, through our own observations and introspections and examinations, it is apparent to us that some overhaul, redirection, and new goal-setting is needed. We simply are not reaching the students in effective enough ways.

Fifth, a needs assessment survey showing student needs. Because the signs were with us indicating a need to look at better ways to serve kids, the Guidance Department of Mesa Public Schools conducted a needs assessment survey. Students, teachers, administrators, counselors, and parents were randomly selected to participate in the survey after which the most important needs were identified. Teaching Guidance learning units were then constructed based on these needs, and a restructuring of counseling has been going on to allow for the delivery of these units through counselor involvement in the classroom, small group counseling, or one-to-one situations.

Sixth, and finally, the federal grant to develop a Comprehensive Career Education Model. Because of Mesa being chosen as one of the six sites to develop a career education model, a new request was made of counselors. That request was that counselors act as building coordinators to assist in implementing the teaching units developed by the six national sites in the career education program. To do this required more time out of the counseling office and into the classroom helping teachers and students.

This is the background, then, that caused Mesa to look ahead to significant changes in the counselor's role. Just which changes are temporary and which are permanent will be decided after field test results are in, but it is my prediction that most will stay. Just what are these changes?

1. Preventative Counseling -- With added importance being placed on the counselor being in the classroom as a member of a team comes the opportunity to shift the emphasis from crisis counseling to preventative or developmental counseling. Needless to say, with counselor-student ratios as high as they are now, it is almost impossible to do very much with the prevention aspect of counseling However, with classroom observation and participation taking place and because of definite needs identified

by our needs assessment survey, the counselor can now be on hand to work with students in a more positive way than ever before. Counseling sessions can take place in the classroom in the form of group work and individual interviewing, or attention to a problem can be focused in the privacy of the counselor's office, if need be. The important thing, however, is that the counselor can now be on the front line of experience with many more students than ever before.

2. Partnership -- The counselor has a golden opportunity to work as a vital member of an educational team. If he helps to plan, provide, implement, and assist teachers with the career teaching units, his image has a chance of changing to a more positive position. When the counselor's talents are coupled with those of the teacher, the media specialist, the principal, and any member of other special services such as psychologist, speech or reading therapist, as well as parents, he joins a very formidable and important team to assist in the education of young people and for the first time is consistently able to witness firsthand the actions of the counselees under his care and is able to use his skills and the resources of the school and district at his disposal in a more efficient and timely fashion than before.

3. Accountability -- This term, as it applies to education, appears to be getting more and more attention. Mesa has been funded by the state of Arizona under Title III to develop an accountability model for counselors. This is coming as an outgrowth of our needs assessment survey, the development of our guidance units and the building coordinator work. Basically, what it will involve will be counselors who will be committed by agreement or contract to bring about predetermined changes in the lives of students. This accountability may be charged to an individual counselor or possibly to the teacher-counselor team, but being able to measure the results and determine responsibility for those results is the name of the game. For years it has been thought next to impossible to measure, to any degree, the effectiveness of counselors. About all anyone had to rely on was the feeling that things were improving and the counselor's time was being well-spent. Now the public is demanding something tangible to prove just how justified counseling really is. As a counselor, I have felt that I have done a good job. But it would be difficult to produce evidence if proof had to be given to corroborate my opinions.

4. Interpersonal and intrapersonal skills -- These two areas are supposed to be among the strongest ones for counselors,

yet counselors have been limited in the use of these skills because of being confined, for the most part, to their offices. By being in classroom situations and being more readily available to the students, there will be greater opportunities to use these talents.

5. The counselor's self image -- As the emphasis shifts from crisis to developmental counseling through more exposure to students and teachers, the self image of a counselor will also change from an image that shows him as neither administrator nor teacher and therefore sometimes without educational justification of being a definite, helpful, important, vital member of the school staff who brings to bear much expertise, particularly in the areas of interpersonal and intrapersonal relations.

In summary, because of information gained from students and because of influence and funding from other sources, the Mesa Public Schools Guidance Department has undertaken to change the role of the counselor by shifting his work station from the office to a broader, more general setting including the classroom, by providing the ways and means for him to forge into the front of the educational picture through assisting teachers and students much more directly in and out of their classrooms, and by providing opportunities for him to use the interpersonal and intrapersonal skills with which he is best equipped, and to do these things knowing that he must be accountable in measurable terms for the results that follow. Such are a few of the significant changes appearing on the counselor's horizon.

Preservice Preparation of Teachers for Career Education

By Louise J. Keller*

The purpose of my presentation, according to the chairman of this seminar, Anna Gorman, is to "challenge this group with two proposals--one involving career education preparation for all majors in a college of education and one in which career education becomes a part of vocational teacher preparation." She envisioned the presentation's being around thirty minutes in length. I think the challenge is insuperable; however, I'll try.

I've divided my remarks into four sections. They are: Some Trends, Issues, and Predictions; Implications of Career Education for Teachers' Preparation; A Plan for All Majors in a College of Education; and, Career Education--A Part of Vocational Teacher Preparation.

Some Trends, Issues, and Predictions

There are a number of educational trends and issues we should review before directing our attention to the preservice preparation of teachers for vocational education and career education. In addition, a number of predictions have been made regarding teaching education in the decade ahead that also have implications for this discussion.

Though many are predicting that there will not be an appreciable increase in enrollment in teacher education programs over the next decade, there are reasons to believe that vocational teachers and individuals with special skills and talents for career education will be in gread demand. The U.S. Office of Education has predicted that the need for new vocational education teachers by 1975 will be between 38,800 and 43,700 and the need for state ancillary personnel will increase from a little over 8,000 to well over 22,000. The report also indicates that some eight million teachers should be retrained for "cluster curriculums."

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There are new alternative paths toward higher education (and even toward the degree) other than physical attendance at an institution. These alternatives can be expected to grow in number and attractiveness during this decade.

Articulation of educational programs for career mobility will become more of a challenge during the decade ahead. Colleges of education will learn to utilize effectively the teacher education potentialities of the secondary schools, area schools, community colleges, and other training agencies.

The underfunding of classroom operations in this country, which is my way of saying teacher oversupply, may provide us the most advantageous and exclusive opportunity to give serious attention to the dynamics of recruitment and selection for teacher education. The criteria for selection may acknowledge for the first time the abilities and talents of people, irrespective of where they were educated and for how long.

New program thrusts, such as career education, together with limited school finance at all levels of education may provide the incentive necessary to move toward differentiated staffing patterns and to extend the learning environment beyond the present day school walls.

There is a trend toward reducing the number of hours required to complete a baccalaureate degree. Colleges of education, however, indicate that more time is needed to prepare competent teachers. The professional teacher education core at the present time represents only one-fifth of a teacher's degree program. Some deans of colleges of education are suggesting that this core, which is usually twenty-four semester hours or thirty-six quarter hours, be designated as an education minor. This would put the professional teacher education core in its proper context, that is, minimally acceptable experience. Some individuals predict that many of the restraints in education today may well cause colleges of education:

1. To design a preservice/in-service education continuum that provides relevant growth experiences for teachers throughout their careers (Cooper, 1971). Graduates would not be expected to be hired as full-fledged teachers but as associate or intern teachers.

2. To design a personnel development system along new structural lines that provide a systematic organization and coordination of education components for program flexibility. Such a design could enhance individual programming for career development, enable new arrangements and linkage systems on campus and in the field, and promote interdisciplinary instructional approaches.

3. To abate the long standing question of whether effective teachers come from a background of liberal education or education pedagogy. The strategy for a college of education appears to be one of establishing recruitment and selection criteria based on competency requirements. Thus, it would make no difference where, when, or how an individual became technically competent. Perhaps this is a polite way of telling professors in the content areas that they need to be concerned with greater competencies rather than with a larger number of hours or the addition of more courses.

The educational enterprise system is gradually moving from a school-based system toward a community-based system of education. Universities will need the foresight to design strategies and prototype programs for training not only school-based personnel but also adjunct personnel--both remunerated and volunteer personnel.

Some colleges of education have established statewide centers for teacher education to serve the needs and interests of the experienced professional as well as those enrolled in undergraduate teacher preparation programs. New approaches to preservice and in-service education are being sought for a variety of reasons. For example, there is a definite move toward in-service education's being planned and executed by an LEA (local education agency) rather than by a college of education. There have been changes in state laws that permit LEA's to provide in-service education for certification renewal credit. This fact, together with the intensification of apprentice teaching programs conducted by LEA's, has motivated colleges of education to consider extending many of their program operations to off-campus sites and to provide a variety of new services.

These trends, issues, and predictions have implications for the preservice preparation of teachers for career education and vocational education. I will not elaborate further but will take these into consideration when proposing input components for the preservice preparation of teachers for career education. Let's move to the second topic--Implications of Career Education for Teachers' Preparation.

Implications of Career Education for Teachers' Preparation

The major implication career education has for us at the collegiate level is that of continuing the career development thrust! Institutions that are really serious about the preparation of personnel for career education will be equally concerned about their own program design and operations for professional development. Career development elements considered important for the elementary

and secondary levels of education are also applicable at the university level. Undergraduate students often need to become aware of career opportunities in education, to explore and to prepare.

Some of the program design features that characterize career education K-12 are implicit criteria for evaluating our own program design and operation for professional development. The following are examples:

1. Program designs and operations are nontraditional.
2. Students have an opportunity to become aware of, explore, and prepare for multiple job opportunities.
3. Subject matter is integrated and correlated to provide an interdisciplinary experience that is more understandable and relevant for many students.
4. Human development services such as career guidance, counseling, directed part-time occupational experience, and follow-up services in the field for early school leavers and graduates enhance and support the total educational enterprise.
5. Adjunct community helpers and paraprofessional personnel are utilized.
6. Professional teachers are involved in new coordinating roles and role relationships.
7. Curricula are performance-based.

There a number of most meaningful implications that can be construed from the career education literature and research and from prior presentations made this week. Any plan for supporting career development concepts and career education in colleges of education will need to explicate their commitment in four distinct ways: (1) a philosophical commitment through their goal statements, (2) a commitment to personnel development for differentiated roles, (3) an instructional program commitment to career education, and (4) a commitment to on-campus and field services.

A Plan for All Majors in a College of Education

I do recognize that there are basic steps or procedures for developing and implementing a program for career education at the collegiate level. I also recognize that changes do not take place easily. I heard the story of a weary educator who once compared teacher training reform to religious reform. Both are formidable

tasks and for much the same reasons. The established rituals are so ingrained that even the slightest modification is a long and tedious process.

The first step to be taken should be the establishment of a coordinating or steering committee for career education. An early task would be to analyze both the present status and future aspirations of the college of education. Looking at where one is in the light of where one would like to be, and vice versa, are mutually helpful ways of analyzing problems. Analyzing the facts about where one is can bring to light previously undiscovered student needs which may necessitate a change in goals and objectives. Analyzing concerns about where one wants to go can make apparent the necessity for collecting facts about the present that were not previously considered important. Planning for career education, therefore, involves needs assessment--the asking of fundamental questions such as, Where are we? Where do we want to go? How do we get there?

My challenge today is not to give you a structural plan for the four areas of commitment but to suggest a number of ideas that hopefully will challenge your "imaginuity," my word for imagination and ingenuity.

These ideas have been categorized under the four commitments mentioned previously: (1) a philosophical commitment through goal statements, (2) a commitment to personnel development for differentiated roles, (3) an instructional program commitment to career education, and (4) a commitment to on-campus and field services.

Philosophical Commitment Through Goal Statements

There are four goals that seem important if we are to support career education at the collegiate level:

1. To provide a supply of qualified personnel to staff career education programs, K through 14
2. To upgrade the professional competencies of personnel now employed
3. To provide supportive services needed to facilitate career education activities on campus and in the field
4. To provide adequate finance, personnel, and FTE's to effectively design, maintain, extend, and improve the teacher education programs for career education

A Commitment to Personnel Development
for Differentiated Roles

Teacher education institutions that intend to prepare personnel for career education face the task of properly perceiving future education roles. The wide range of personnel needs--professional and paraprofessional, in-school and non-school based personnel--represents an interesting challenge to colleges of education. Meeting these needs may of necessity require new partnership arrangements between colleges of education and secondary schools, area schools, community colleges, and other four-year institutions.

A college of education may wish to consider these seven personnel development programs that promulgate a number of alternative modes for career preparation based on competency levels. These seven personnel development programs for education also provide for greater career options, earlier entrance into the educational system, and new role relationships for colleges of education. I have titled these personnel development programs: (1) Cooperative Teacher Cadet Training Program, (2) Paraprofessional Program, (3) Technical Aides and Assistants Program, (4) Volunteer Teacher Assistant Program, (5) Teacher Internship Program, (6) Occupational Internship Program, and (7) Professional Careers in Education Program.

Cooperative Teacher Cadet Training Program -- This is a special on-campus summer program for high school students interested in beginning experiences in education the following year through a cooperative education experience sponsored by an LEA (local education agency) and a college of education. This may well become the pool for recruiting and selecting future education talent as well as a natural area for research, study, and action programs (Cooper, 1971). Colleges of education may wish to consider preparing professional personnel for these high school cooperative education programs. For example, there is a one-year cooperative program in Texas designed to take senior students as trainees in school-related positions and activities. The program endeavors to train youth to become effective teaching assistants upon high school graduation and to qualify these trainees for state civil service positions as Education Aides I and Aides II. Another objective of this program is to provide background training for those students interested in the junior or community college paraprofessional or teacher technician program that is necessary to qualify for an Aide III position.

Paraprofessional Program -- This is a jointly sponsored program between a college of education and community colleges, area schools. Within this program there would also be competency levels that recognize a personnel hierarchy ranging from aide to paraprofessional. Professors from a college of education or appointed

adjunct personnel would assist in the instructional and administrative activities. This program may also be offered in a four-year institution. Positions available in career education are: career awareness aides, career education job development/placement assistants, career education guidance assistants.

Technical Aides and Assistants Program -- This program would also be sponsored by a college of education, community college(s) and/or area schools. Some technical assistants may be considered as professional staff members when hired by a local education agency because of their skill, knowledge, and experience. Positions available in career education are: career education media aides/technicians, career education research assistants, career education curriculum/instruction development assistants/technicians, and career education resource center library technicians/aides.

Volunteer Teacher Assistant Program(V-TAP) -- There are actually two programs sponsored under this title. One is designed for students enrolled at the university and participating in the instructional module known as "Careers in Education." This is an awareness and exploration program for freshmen or transfer students. Compact tours of duty at various representative grade levels are designed to help interested persons determine their "starting" age group in teaching in addition to gaining an insight into roles, responsibilities, relationships in education. The other program is for training community volunteers and perhaps remunerated adjunct personnel for local schools. Colleges of education as part of their extension/continuing education responsibilities could provide short training courses in the field for the following roles: career counselor assistants, career discussion leaders and listeners, resource and activity supervisors, neighborhood home-school coordinators, referral agency-school-home coordinators, business and industrial tour guides, career role players, work simulation supervisors, career cluster aides, basic education tutors, special education task development helpers, on-the-job training supervisors, work sampling consultants, pre-apprenticeship sponsors, advisory committee and task force committee members.

Teacher Internship Program -- This would be a person's first half-time or full-time paid position in teaching. The intern would be supervised by the college of education's field service staff. This could be conceived as taking place during the junior and/or senior year and lasting for varying lengths of time--one quarter or as long as three years. This program has many possibilities for developing career education personnel and lends itself well to the growing concept of teacher education centers for apprentice teaching.

Occupational Internship Program -- This would be a program sponsored by business, industry, and labor through colleges of

education. Participants may be graduates from community colleges or area schools or may be individuals coming directly from business and industry who wish to become instructional area specialists for vocational and technical education programs at secondary and post-secondary schools. Individuals enrolled in this program are employed full-time in business or industry and are enrolled in multi-media correspondence courses, come to campus once each quarter (Thursday night through Saturday) for a seminar, and return to campus for a minimum of three summers to complete the baccalaureate degree. The related work experiences are planned and coordinated toward career goals in education by a college of education field service coordinator. A modification of this idea is now being tried by Mankato State College in Minnesota as one way of preparing distributive education teacher-coordinators.

Professional Careers in Education Program -- This is more than a program. It is a professional development system and requires a mix of existing and new instructional practices and learning activities as well as a mix of existing and new curricular offerings. The system recognizes that there are and should be (1) differentiated levels of responsibility in education, (2) differentiated functional roles, and (3) differentiated levels in education.

The differentiated levels of responsibility promote two concepts. First, there should be professional teaching levels such as associate teacher, staff teacher, senior teacher, master teacher (Cooper, 1971). The second concept promotes a preservice/in-service education continuum. Undergraduate students would not be expected to complete all the professional education modules; these experiences could be continued after the graduate is employed, perhaps at a center for teacher education.

The "careers in education program" would also prepare for differentiated levels in education: preschool, primary K-3, elementary 4-6, middle 7-8 and 9-10, secondary 11-12, post-secondary 13-14, and adult education. This recognition, needless to say, regards preparation of personnel (for example the middle grades of junior high school) as having a set of unique competencies. The junior high school has traditionally been known as the "exploratory" phase of education but little has been done to prepare personnel for this level of education or to enhance the mission of the middle grades.

A system for professional development also recognizes that at all levels of education there are differentiated functional roles in education (Schaefer and Ward, 1972); therefore, the entire program could be organized around these five college of education spheres for personnel development:

Instruction--Areas of Specialization
Career Cluster Specialization

Human Development and Resource Utilization

Administration/Supervision/Coordination

Curriculum/Instruction Materials Development

Research and Development

A commitment of a college of education to personnel development is indeed a pretentious challenge. If you recall, I began with four commitments. The first one related to our goals, and the second commitment referred to preparation for differentiated roles. Now let us examine the next two commitments--an instructional program commitment followed by a look at the service commitment.

An Instructional Program Commitment to Career Education

I mentioned seven programs for differentiated roles. The one closely associated with most existing programs in colleges of education was the last one titled "professional careers in education" program. Entrance into this program would require individuals to demonstrate technical competencies and general education competencies depending on the personnel position being sought by the student. Should individuals need additional technical or content mastery they may be referred to an area school, community college, or even business and industry. The major criterion for entrance into the "professional careers in education" program would not depend upon accumulated hours at an approved institution but upon a set of competency criteria that recognizes that one can become educated in a variety of ways.

Another criterion for acceptance into the "careers in education" program relates to the personal experiences of an individual. There are many credos for groups and one that many of you know is the obligatory section of Phi Delta Kappa that urges its prospective member to forever prevent himself from living the life of the recluse. Being withdrawn is selfish as well as disfunctional. Inviting to become classroom educators persons who have lived the life of the recluse, who have not sought or had the opportunity to work, is to suggest that that type of experience is not germane to becoming a more total, more well-rounded educator. I think we should seriously look at the dynamics of selection for careers in education and identify those experiences we recommend, rather than ignore the significance of work experience for all teachers. This is not to say that everybody that works would make a good teacher. But it does suggest that those who do not work do have a built-in

limitation when it comes to the creation and adoption of instructional materials for career education.

The instructional program commitment design that I am suggesting is structured around four components: guidance, service, learning, and experiencing. The guidance component manifests the college of education's concern for the needs of the learner. The service component supports both on-campus activities and in-the-field activities. Both the guidance and service components provide a linkage system between preservice and in-service activities. These two components will be described later in more detail.

The learning and experiencing components are divided into modules for program flexibility and decision-making based upon individual needs and career goals in education. The modules are competency-based. Those who have been involved in career education at a local agency level have learned that there are some special skills needed by educators. These skills need to be considered when designing learning and experiencing modules. Some of these skills are: assessing the needs of learners, educational personnel, and the community; formulating objectives for career education; structuring curriculum and instruction around an occupational cluster system; securing and utilizing community resources; analyzing clusters to determine learning modules/elements for individualizing instruction; integrating and correlating subject matter; designing pupil personnel services; evaluating and measuring achievement; selecting, collecting, and disseminating career education materials and media; articulating curriculum and instruction vertically and horizontally; counseling for occupational preparation; managing things, data, and ideas; placing students once competency levels have been reached; involving volunteer helpers in the educational process; working effectively in teams and differentiated staffing patterns.

The following modules are suggested for all majors in colleges of education and relate specifically to career education, K-12/14. Two modules would be required of students prior to certification--the "Subject-matter Application" module and the "Pre-teaching" module. The latter module is similar to our present core taken by students prior to student teaching.

Modules for Career Education Teacher Preparation

Careers in Education -- Individuals interested in roles, responsibilities, and relationships in education are encouraged to participate in this awareness and exploration module. Students will have an opportunity to observe all levels of education and areas of specialization and relate these experiences to their own career plans.

Society and Work -- This module is concerned with basic knowledge about the institutions and dynamics of our society that generate, define, and lend meaning to occupations. The module provides examples of how such content can be interfaced with subject matter throughout a school system. The module is divided into four units: (1) Components of a Working Society, (2) The Economics of Work, (3) How Work Roles and Values are Defined, and (4) Changes in the Working World. (Additional information for this module and those titled Occupational Information and Basic Technology can be found in a study by Altman, 1966.)

Guidance and Counseling for Career Planning -- This module is concerned with the role of all teachers in guidance and counseling. Participants are introduced to counseling techniques and the use of information about the world of work and self-knowledge for making effective career choices and educational/training plans. The idea behind this module is that if students can learn to be good teachers at the undergraduate level, they should be able to learn to be good counselors. The teacher's role in guidance and counseling must be strengthened for career education.

Basic Technology -- This module should involve students from all areas of specialization. The units draw heavily upon findings in the fine arts, engineering, sciences, and humanities for its content. Participants would have an opportunity to examine and develop for themselves those basic technologies needed by all members of this society. These are the "informal" applications of learning to survive in a modern society and may be grouped as to (1) general work habits, (2) machines and mechanical principles, (3) electrical principles, (4) structures, (5) chemical and biological principles, (6) numerical operations, (7) verbal communications, and (8) human relations. This module would provide students an opportunity to analyze and synthesize their general education and education specialization and relate these knowledges and experiences to the educational needs of people in both rural and urban environments.

Career Education -- The historical antecedents of career education are discussed and related to six cyclic stages for career development: awareness of careers and self, role explorations, cluster identification and orientation, preparation for employability (vocational education), job entrance and development, career assessment and recycling. These six stages are associated with the mission and goals of education at various levels--early childhood through adult education. Students visit various schools and investigate how these schools have implemented specific career education goals and objectives.

Clustering Techniques for Career Education -- Various "clustering" systems are examined in relationship to content, learning experiences, and role relationships. Implications for various

grade levels (such as integrated and correlated subject matter, work simulated laboratories, work sampling in the community, utilization of volunteer helpers from the community, placement of world-of-work bound students) are explored. (The U.S. Office of Education has predicted that some eight million teachers will need to be involved in "cluster curriculums" by 1975.)

Vocational-Technical Education -- The preparation phase of career development is examined in more depth. The units are: (1) Basic Principles of Vocational Education, (2) Determination of Manpower Needs, (3) Training Methods, (4) Legislation Mandates, (5) Existing Vocational-Technical Programs (goals and objectives), and (6) Expansion Needs.

Subject Matter Application -- Required of all majors in a college of education, this module is concerned with helping the future or present teacher relate subject matter of his specific discipline to the realities of life in order to make education relevant, understandable, and even more palatable for some youngsters. I would hope that a number of probing questions would be asked, such as: How does a historian earn money? and How does each one of us become a miniature type of historian? What so many people fail to realize is that most people collect a great variety of data in their everyday living, and it does require us to become "informal" historians. Many of our personal living tasks require us to become informal mathematicians, informal construction engineers, informal doctors, informal sanitation specialists. Career education preparation asks the question: How does any one academic area become applied in the sense of informal application to better serve and understand the world in which we live as well as applied in the sense of the extension of these informal applications to the formal career of others who expand and make a living from our informal processes? This seems to indicate that all of us are, in a rather strange way, another's informal image of life. I am being an "informal historian" when I do my letter writing, but to another person it may be a "formal" application as he prepares documents in his place of employment. I am a miniature mathematician, but I usually seek out the formal application of mathematics when I visit the office of the income tax experts.

In this module students have an opportunity to relate their subject matter specialization to the realities of life--home and family living, health, citizenship, and career development--and understand, that career education holds its greatest promise in the creation of materials that relate to the understanding level of the learner and expands to those areas with which the learner is not familiar. This means that the teacher of reading would have a career education objective but, depending upon the geographic location of the learner, there would be different starting points as to the content used in teaching reading.

Within the context of the "Subject Matter Application" module, groups of students would discover underlying themes in a community that could be utilized as a field source for firsthand experience as the most likely means by which their future students might explore the diversity that is in the universe of work.

We are asking teachers in the field today to restructure or adapt their curriculum and instruction around a new theme called careers. It would seem to me that one could not expect this creativity to take place in the future without some preliminary preservice experience. Within this module of application we have the opportunity to bring together learners from many disciplines. We already know from our experience in career education K through 12 that graduates coming from our institutions are required to integrate, correlate, and differentiate their subject matter. Academic and general education teachers often find it difficult to relate content and process to occupational environments. On the other hand, vocational teachers find it equally difficult to blend their activities with basic education components. Within this module, strategies for exploring and involving students with other subject areas and "blending educational experiences" should be high on the priority list for preservice education. This kind of interdisciplinary involvement is also important because future teachers will need to be prepared for new "coordinating" roles and role relationships. Teachers being employed today will need to be trained to "plan" and "work" in teams and differentiated staffing patterns. The environment in which they are trained should contribute to these new working relationships.

The preservice experience should expose future teachers to instruction in group dynamics, involvement in ethnic groups, planning strategies, and human relations. Students will need experiences as education team leader, team member, individual unit instructor, social leader, group counselor, individual counselor, progress evaluator, and school-community coordinator. Future teachers will need an understanding of the total educational spectrum and should be able to relate their specialization to occupational environments. Perhaps one way to bring about a change of attitudes on campus is to involve professors from various disciplines in this module.

These eight modules should provide for a variety of involvement experiences. Not all undergraduate students will be able to take all the learning and experiencing modules offered by a college of education. However, these can become a part of the preservice/in-service education continuum for career education.

A Commitment to On-Campus and Field Services

A commitment to career education is an institution's recognition that the professional development of teachers is a continuous

process that must be sustained by a variety of human development and resource services. Some of these services are briefly described below.

Career Guidance and Counseling Services -- A college of education should provide its own career guidance and counseling services. Four unique services are suggested: (1) to establish "team advisement" and replace the present major adviser system (The advisement team would assist individuals to plan an academic and occupational experience program. The team would be composed of a major adviser, a field service coordinator, an on-campus member-at-large [perhaps a nonprofessional staff representative], and a world-of-work adviser. It is hoped that each individual graduating from the college of education will have been prepared for multiple career options upon graduation--a position within education as well as for jobs in the world of work.); (2) to provide prospective teachers opportunities to identify with recognized career educators and to discuss personnel development concerns; (3) to measure, review, record, and plan prescribed and discretionary learning experiences to reach specific career objectives; and (4) to serve as a referral agent for students with special needs.

Educational Field Services -- Some of the unique services of this component are: (1) job development and placement services, (2) directed occupational experience supervision and coordination, (3) apprentice and internship experiences through centers for teacher education or LEA's, and (4) student-teaching--planning and supervision.

Career Education Resource Center -- This is a resource center to locate, evaluate, select, collect, and disseminate K-12/14 curriculum and instruction materials, media, and information. The center would also publish guides and handbooks and possibly a statewide newsletter for communicating and sharing career development activities. The center's foci also include interdisciplinary research activities, curriculum and instruction materials development, and support for in-service education activities.

Career Education--A Part of Vocational Teacher Education

At the beginning of this paper I stated that my remarks would be divided into four parts. This last and final part is concerned with the role of departments of vocational education in career education. I believe that departments of vocational education must be concerned with and intimately involved in any teacher education program design and operations for career education. This is my rationale. Secondary and post-secondary programs--in both quality and quantity--will be affected by the career education

content and processes implemented by elementary and junior high schools. I believe that career education is developmental and sequential in nature and that vocational education is that important preparation stage in career development. If vocational education is to be held accountable for the training and placement of all those students who do not seek a baccalaureate degree, then I believe we should be involved in designing content, learning experiences, methods, media, and evaluation criteria for career education K through 14. The attitudes, work habits, and understandings about the world of work learned prior to entrance into career preparation programs should be of great concern to us.

Just as I am concerned with what happens to students before they enter vocational preparation programs, I am equally concerned with the breadth and depth of program offerings for future enrollees in vocational education. We must provide for greater quantity and variety. Programs that go beyond the elementary skill level courses must be offered. There are so many vocational preparation fields we have ignored. For example, there are thousands of excellent jobs in the fields of health, medicine, fine arts, science, visual communications, recreation, and even education that do not require a baccalaureate degree. Our own perception of the world of work and our role in the preparation of people for work must expand and catenate with the vocational preparation needs of the academic disciplines.

I would like now to move out of the realm of conjecture and share with you how our department of vocational education has perceived its role in the preparation of vocational teachers and its role in career education. First, let me provide you with some background information. Vocational teacher education at the University of Northern Colorado is a department in the college of education. The coordination of vocational teacher education activities began five years ago. The department, however, is only two years old.

The staff organization consists of the following work titles: director and chairman of the department; coordinators for programs and finance, field services, occupational experiences, and Center for Career Development; program specialists for business and office education, distributive education, home economics education, health occupations education, and career development education (UNC does not have undergraduate agriculture or trade and industrial programs recognized by the state board's Division for Occupational Education); supportive staff: media technician, resource center assistant, project secretaries, and record clerk; and staff associates and graduate assistants.

Our curriculum is divided into nine major categories: Foundations of Vocational Education; Curriculum, Methods, and Media; Evaluation; Research; Special Needs; Career Development Education;

Administration and Supervision; Field Experiences; and areas of specialization at the undergraduate level.

Another fact is that we do not offer an undergraduate degree but serve students and other departments, schools, colleges. We provide eight types of services. These are: orientation to careers in vocational education and career education; directed occupational experience; team advisement; leadership development through field experiences; instruction in nine areas of professional education; student teaching--placement and supervision; professional job development and placement; and follow-up and field services.

I'll not attempt to describe all of our undergraduate activities, but I will describe those that are unique and/or relate specifically to our role in career education. We provide a Saturday seminar each quarter to acquaint freshmen and transfer students with careers in vocational education and career education. This service is also extended to student dorms through a career awareness program.

The department employs a coordinator for Directed Occupational Experiences who also serves on a student's program advisement team. A student who wants to be prepared for vocational education or career education positions is encouraged to design an educational program composed of academic and occupational experiences. Let me give you a concrete example of team advisement. Cindy was sent to us from the Department of Home Economics. She wanted to prepare for multiple career options just in case she could not find a teaching position upon graduation. One of her options was preparation as a vocational home economics teacher. Cindy made an appointment with our coordinator of Occupational Experiences. She expressed an interest in food service and a lack of interest in other areas in home economics. Our coordinator visited with her major adviser and contacted the head of food services on our main campus and asked him to serve on Cindy's advisement team. This past year we added a fourth member, the manager of a large restaurant chain in our community. When Cindy graduates she will be prepared for the following career options: a vocational home economics teacher with a specialization in food service, a manager of a school cafeteria, or employment in the food industry. Her advisement team has provided for cooperative occupational experiences on campus in our meat processing plant, bakery, and dorm cafeterias. Her community adviser has provided her with a variety of occupational internship opportunities as an honorary member of the Colorado-Wyoming Restaurant Association.

Students are first exposed to career education opportunities through the orientation seminar. The first in-depth experience will come when they enroll for the first required course in our foundation sequence. The students are required to:

1. Describe the role of vocational education in relationship to career education.

2. Know five basic concepts of career development and be able to describe the cyclic nature of career development.

3. Describe how one's own field of specialization can be integrated or correlated with other subject matter fields.

4. List the job titles in vocational education and career education for which an undergraduate can prepare.

5. List eight different work habits and work attitudes that can be measured and should be emphasized at the elementary level.

6. Prescribe career awareness and exploration experiences for the upper elementary and junior high grades that would enhance the preparation stage (vocational education) at the senior high and post-secondary levels.

7. Know various methods for assessing the career development needs of people and ways of converting these needs into relevant learning experiences.

8. Describe the tasks of secondary or post-secondary educators who are responsible for job development, placement, and coordination.

9. Describe an occupational clustering system that at the secondary and/or post-secondary levels of education would enable students to enroll on any day of the year, become aware of, explore, prepare for, and progress in their career choice at his/her own rate and ability.

10. Describe briefly: (A) the occupational service areas in the state, (B) the name and location of the state regulatory agency for these service areas, and (C) the type of occupational training programs available in the state under each service area.

11. Describe the unique features of career education at the elementary, junior high, and high school levels.

12. Define "work," "education," "career," and "roles."

13. Respond to the following statement, "There should be a community-based system of education rather than a school-based system of education," and discuss what implications such a system has for career education, K-14.

This past year we developed Career Education Student Teams composed of undergraduate and graduate students. One team, for example, was composed of a distributive education undergraduate student; a graduate student in psychology, counseling, and guidance; an undergraduate major in elementary education--with an emphasis in reading--who was also bilingual; an industrial arts graduate student; and a recent graduate of our business education program. These individuals worked with teachers of grade 4 one day a week and designed and conducted career awareness programs in four subject matter fields: language arts, science, social studies, and mathematics.

The department also maintains a Center for Career Development. This center makes available instructional materials and media for student use on campus, and for career awareness and explorations and K-12 programs in the field. The center also serves as a data bank for multimedia learning activity packets in vocational education. The coordinator of the center has an undergraduate degree in modern language; a master's degree in outdoor education; specialist qualifications in psychology, counseling, and guidance; and a doctorate degree in curriculum and instruction with an emphasis in vocational education and career education.

The department also employs a program specialist for career development education. Career Development Education is one of our nine major instructional categories. The program specialist is responsible for the following approved courses listed in our catalog: Career Development, Curriculum Restructuring for Career Education, Career Guidance, Counseling, and Placement, and Manpower Development and Utilization. The background of this individual includes vocational counseling in an inner city high school and teaching vocational home economics at the junior high, senior high, and collegiate levels. Her doctorate combined guidance, counseling, vocational education, and career development education.

The Dean of the College of Education, Dr. Bruce Broderius, recently issued a mandate to all department chairmen to become involved in designing a career education program for the university laboratory school--an elementary through high school program.

These represent a few of our preservice activities in career education. Most of our teacher preparation programs for career education, however, are at the graduate level and are through in-the-field service activities. We started our career education activities four years ago when we brought to campus the entire K-12 professional staff from three school districts to restructure curriculum and instruction around a career development theme.

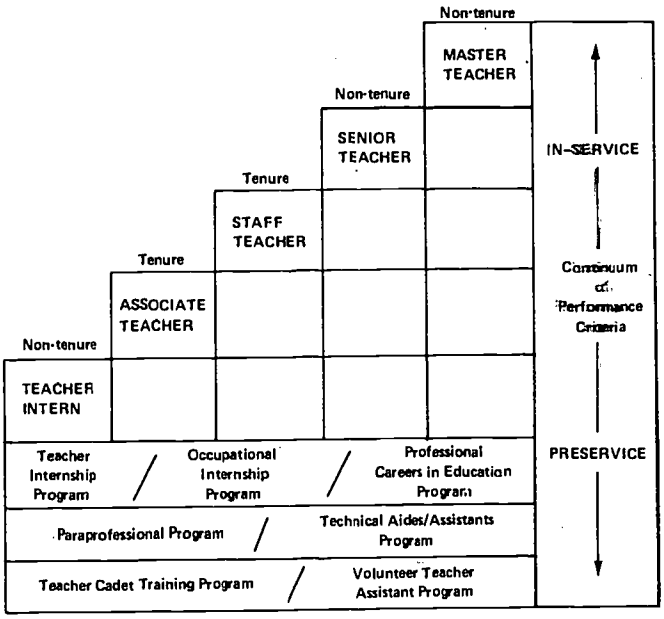
The role of vocational education departments in career education should be to: (1) provide instructional modules that elucidate the role of vocational education in career development

education, (2) prepare vocational education personnel for differentiated roles and levels of responsibility and for a community-based system of education, (3) design instructional practices and learning activities that encourage integration and correlation of academic and vocational subject matter, (4) support services needed for better articulation of career development activities, K-14, (5) provide leadership on campus and in the field through participation on coordination and steering committees for career education, and (6) promote research and development activities that strengthen the concept of career development education.

Preparation of individuals for differentiated roles, functions, and levels promulgates (1) a performance based curricula, (2) student selection criteria for specific career programs in education, (3) consortium or partnership arrangements with other institutions for the preparation of personnel for education, (4) a more interdisciplinary approach to all subject matter within colleges of education, and (5) the recognition that personnel preparation is continuous and perhaps we should view preservice and in-service education as a continuum rather than two separate and unrelated functions.

The following chart is a modification of a similar illustration developed by James M. Cooper, director of teacher education, University of Massachusetts, in 1971. The modification was made to illustrate the differentiated roles and levels of responsibility for teaching careers proposed in this presentation.

DIFFERENTIATED ROLES AND LEVELS OF RESPONSIBILITY FOR TEACHING CAREERS



Summary and Conclusions

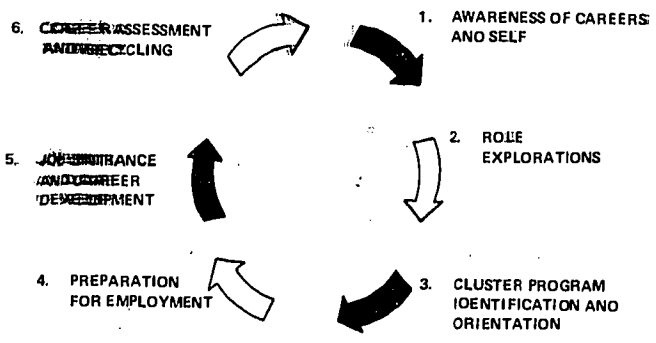
There is a breath mint advertisement on television that claims its product is two mints in one. I'll now attempt to synthesize four sections into one.

There are many trends, issues, and problems confronting higher education. Designing a teacher education program today that meets the needs of people and the demands of people is a horrendous challenge. Designing a plan that would be applicable for all institutions is not feasible. I chose to propose a number of synoptic ideas rather than a specific plan, hoping that you would find at least one idea to take home and critique with your colleagues.

My presentation this afternoon had several underlying themes that may help tie together the synoptic ideas in all four sections. One such theme expressed throughout this presentation focused on the preparation of personnel for differentiated roles, functions, and levels in education. The many restraints on education as well as demands (1) to shorten the degree time requirements, (2) to provide for earlier student involvement in the teaching process, (3) to increase the number of career preparation options, (4) to provide more alternative training paths, and (5) to respond to the demands of teachers in the field for promotional opportunities within teaching have given impetus to the preparation of personnel for differentiated roles and functions, as well as preparation for different levels of education.

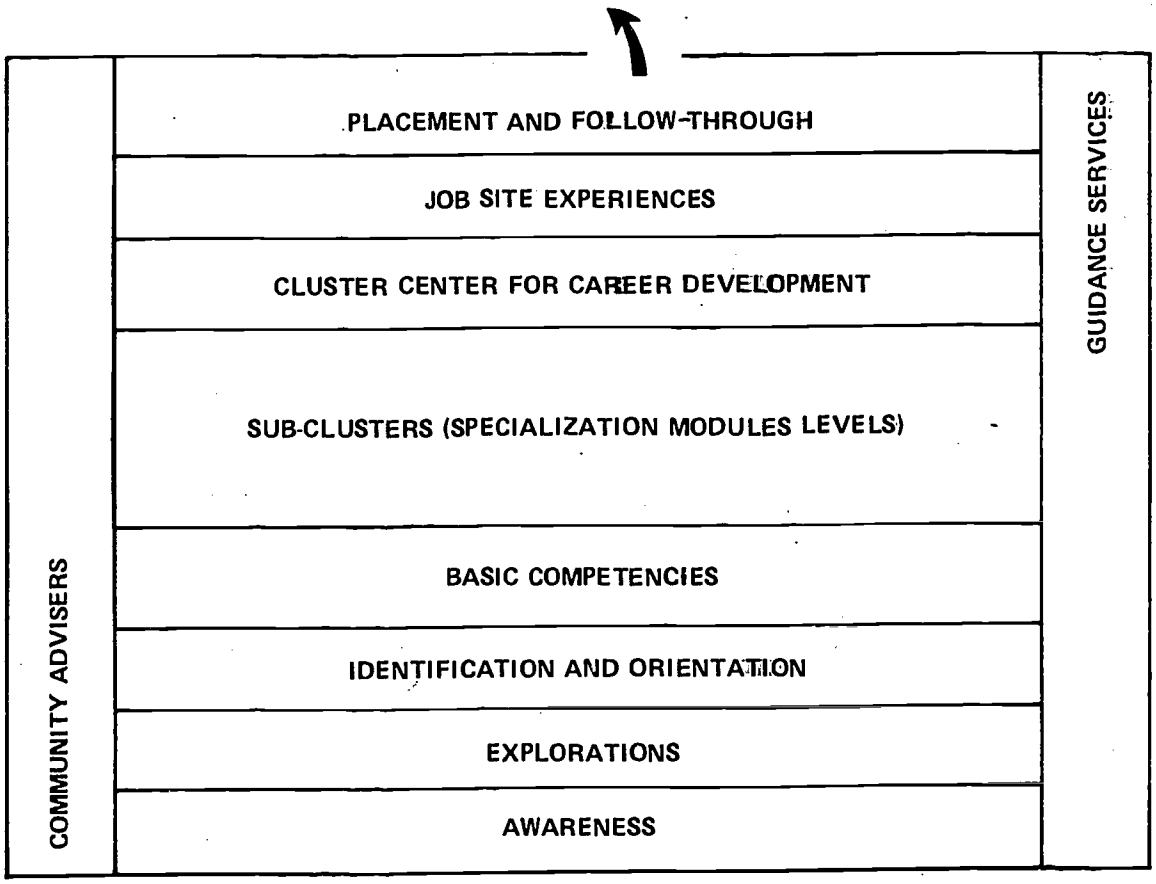
Another theme in this presentation suggested that colleges of education adhere to concepts of career development advocated for the elementary and secondary levels of education. Effectual promulgation of career education requires us to practice what we teach! I suggested that we view career development as having six cyclic stages, and these stages appear in the following chart.

SIX CYCLIC STAGES FOR
CAREER DEVELOPMENT



These six stages for career development have been expressed in numerous models for career education and are influencing curricula in the elementary and secondary schools. These six stages are also relevant for higher education. Program designs and operations for teachers' preparation must help individuals become aware of careers in education, explore, identify with cluster specialization modules for learning and experiencing, and prepare for specific roles and functions. Vital to the success of career development are guidance and other supportive services. A number of guidance and service ideas were suggested--team advisement, centers for teacher education, center in the college of education for career development, placement of students in business and industry for related occupational experiences, and the utilization of community advisers. The chart below shows some of the career development components arranged in a sequential order moving from an awareness stage through placement and follow-up activities in the field. Notice that in the chart these components are supported throughout by community efforts and guidance services.

COMPONENTS FOR CAREER DEVELOPMENT
APPLICABLE TO ALL LEVELS OF EDUCATION



A career development system, regardless of the level of education, will be committed to these components. Such a committment, however, will require the allocation of personnel and finance. This means that we, too, must review our mission and priorities in education.

Another underlying theme suggested that colleges of education and departments of vocational education establish a performance-based curricula structured around learning and experiencing modules that could be linked for more interdisciplinary experiences. Each module with its own competency requirements would provide for greater program flexibility and would also provide the vehicle for a preservice/in-service continuum. The following career education modules for undergraduates were suggested: Careers in Education, Society and Work, Guidance and Counseling for Career Planning, Basic Technology, Career Education, Clustering Techniques for Career Education, Vocational and Technical Education, and Subject Matter Application.

I did not suggest what department should be held responsible for the above learning and experiencing modules for career education at the undergraduate level. I would anticipate a department of vocational education assuming part of this responsibility. Here lie the seeds of innovation for curriculum development with multiple career options and alternative training paths. Hopefully, the approach taken in curriculum and instruction will be interdisciplinary.

Departments of vocational education, hopefully, will be involved to some extent in all the career development components. The extent of this involvement will depend, in my opinion, on your own resource capabilities and present interdisciplinary instructional programs. In other words, if we cannot identify those learning and experiencing commonalities that exist in the occupational service areas of agriculture education, business and office education, distributive education, health occupations education, home economics education, technical education, and trade and industrial education, then I believe we are going to find it difficult to enter into a career education dialogue with the academic communities within our own institutions. This is why a curriculum organization scheme for vocational education was mentioned. Remember that organization stressed nine major categories or "areas of emphasis" around which to build a vocational teacher education program. They were: Foundations of Vocational Education, Curriculum, Methods, and Media, Evaluation, Research, Special Needs, Career Development Education, Administration and Supervision, Field Experiences, and Areas of Specialization (undergraduate level only). This type of organization not only permits an interdisciplinary approach within occupational education but would allow courses or modules to be linked with other disciplines.

Carl J. Schaefer and Darrell L. Ward very well summarized below the input variables for a state personnel development system in vocational education.

PERSONNEL DEVELOPMENT SYSTEM VARIABLES CONTINUALLY REVOLVING AROUND NEEDS OF THE INDIVIDUAL

Preparation of personnel for career education requires us to determine the personnel needs in our state, design programs to meet these needs, provide services that enhance and strengthen the career education thrusts and needs at the local level, and be continually involved in evaluation, research, and development activities.

I hope that I have provided worthwhile inputs into the conference discussion. The challenge given to me by Anna Gorman is now yours!

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Presentation

In-Service Preparation: Key to Career Education Delivery

By Harry N. Drier, Jr.*

Introduction

Career education is a needed, exciting, and dramatic educational concept whose time has now arrived. It incorporates the need for each learner to be an active participant in his own becoming, a contributor to the social order he is prepared to enhance. Career education can be viewed as the most important dimension of education now being studied and delineated. It can be viewed as the focal point for curricula, guidance, and instructional realignments toward a new effort to coordinate the goals and resources of society for a more effective and relevant education. Career education research, development, and demonstration is off and running throughout the nation--but career education has not yet arrived.

The need for it as suggested by the following excerpts provides an incentive base and rationale: "By demanding education reform now we can gain the understanding we need to help every child reach new levels of achievement; only by challenging conventional wisdom can we as a nation gain the wisdom we need to educate our young in the decade of the seventies." (President Richard Nixon, 1970) "Nearly 2.5 million students leave the formal education system of the United States each year without adequate preparation for careers. In 1970-71, there were 850,000 elementary and secondary school dropouts, 750,000 general curriculum graduates who did not enter college and 850,000 high school students who entered college in 1967 but didn't complete the baccalaureate or an organized occupational program." (Elliot Richardson, Secretary of H.E.W., in DHEW Publication No. [OE 72-39])

The press for it from government and educators gives it momentum and operational status as suggested in the following quotations: "Shall we persevere in the traditional practices that are obviously not properly equipping fully half or more of young people

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Major contributions to segments of this paper were made by Dr. Leslie Bishop, professor of curriculum and instruction, University of Georgia.

or shall we immediately undertake the reformation of our entire secondary education program in order to position it properly for maximum contribution to our individual and natural life?" (Sidney P. Marland, U.S. Commissioner of Education, at the NASSAP 1971 Convention) "Education has failed to respond to changing social needs. In effect our educational system is our way of maintaining a class system . . . a group at the bottom. Education should de-emphasize the structure of knowledge, and deal with it in the context of the problems that face us. We might put vocations and intention back into the process of education." (Jerome S. Bruner, *Phi Delta Kappan*, September 1971)

The challenge of career education is in its scope and likely future impact. The exciting challenge for us in staff development is the opportunity to build that scope into operation, to insure that the full potential impact is realized. This is a sobering but exhilarating assignment for us all.

An instructional imperative such as career education is powerful as an incentive, but alone it remains a pressure. Its development and implementation is but hollow if there is no curriculum. However designed and conceptually sound, a curriculum plan is inert until it reaches the student. Implementation demands an imperative management and curriculum plan and interested and prepared persons to bring it to life. Helping these persons to develop the commitment and the skills and knowledge to execute the curriculum plan is the charge and challenge facing in-service educators.

In-service education is vital to program adoption and implementation. It is the process that allows a felt need to germinate and grow to full life; it is facilitating the growth of those charged with the various responsibilities identified to be performed.

In-service education like every other process has its various elements or phases with each requiring its own unique mode. One important element is knowledge. This means information about career education. It is the rationale, concepts, objectives, and strategies involved. Information transmittal is telling via film, videotape, lecture, publications, or other communication processes. A second element is commitment. A personal attitude of commitment is necessary if knowledge is to be used correctly. A positive attitude cannot be secured by obtaining knowledge alone. It needs interaction, involvement, participation, and identification. Thus, the discussion group, the seminar, the visit, the laboratory experience, a multi-sensory proprietorship must be experienced. A third element is competency. Competency involves a combination of information and skills. For a competency to exist there must be opportunity to observe, to practice, to experiment, to prepare, to transact, to evaluate, to receive prompt feedback regarding style and effectiveness--plus the opportunity to try again. There are

other elements but these few serve the purpose for discussion. The reason for citing these is to suggest high priority tasks that need to be addressed and the possible methods by which these tasks can be achieved.

In-service leaders must exhibit, because of the national call for systematic planning and accountability, the same attention to sharpened objectives, particularized content, and strategies as expected of other educational staff. As important as is the need for the program to be all inclusive, no one can be overlooked; all who in any way effect the education of our young and old alike--school, home, and local, regional, and state communities--are uniquely accountable.

Yes, career education is in third gear and moving at a rapid speed; but, it hasn't arrived. Arrival is a different story. Only when career development concepts are infused in all content and experience areas of preservice and in-service education at our universities, only when the total school curriculum is modified to include career education concepts as core elements of content, experience, media, and evaluation can we say it has arrived.

Arrival will occur when education functionally includes the broad career dimension, when it has career development education goals implanted into its materials, processes, policies, budget, and information systems, when career development education is integral to the daily instructional experiences of students, when it's a demanded expectation of parents and patrons, when career development education occurs in our schools, community, and homes as a regular, not special curriculum. Then we will be able to say with pride and confidence, "Career education has arrived."

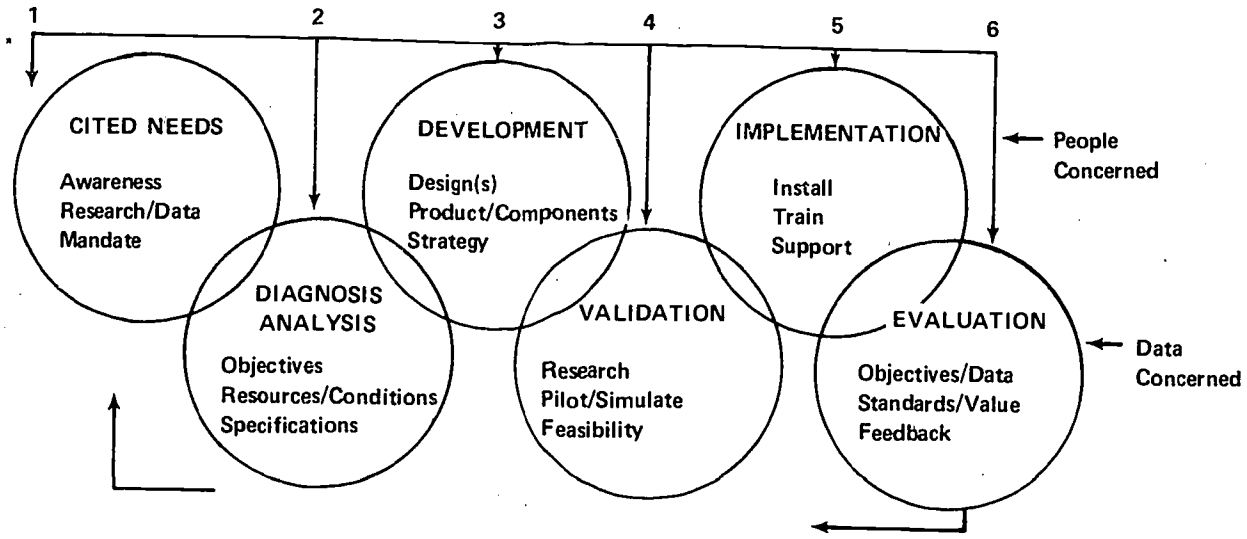
In-service in career education cannot be viewed as a frill or an add-on to the present program. It must be considered as an integral feature, not one that occurs a few days before school opens, after school, or only in the summer. It must be woven into the ongoing substantive, procedural, and organizational fabric of the system.

Phases of a Comprehensive In-service Education Program

Let's consider a set of phases that could be used for developing a comprehensive in-service education program. (See the chart, produced by Dr. Leslie Bishop at the University of Georgia, on the following page.)

The introduction of career education in a system will bring with it a new set of needs on the part of all staff. Educators have a fundamental drive towards growth and improvement. When

IN-SERVICE CHANGE MODEL



needs are identified or delineated, teachers, counselors, supervisors, and principals must all participate in this inquiry--the search for program focus and direction. This implies that they all should be deeply involved in the analysis of system needs.

To provide inputs for program development during this design phase, there must be established procedures to allow input from all professionals in ways appropriate to their expertise and responsibility. Goal setting, identification of objectives, and producing specifications have their in-service component. In-service leaders at all levels of education should be uniquely qualified to exert leadership at this juncture.

At the point of program development, staff members are needed for their experience, their knowledge, their peer impact on other staff members. Direction and leadership can come from other sources (such as consultants, research findings, model programs tried elsewhere), but the participation in selection, adaption, and commitment must come from staff involved in the program.

Pilot testing can be a most exciting but painful process--experimenting, experiencing, researching, and monitoring. The selected staff involved in program piloting are critical to an assessment of appropriateness and adequacy and have a unique and important contribution to make by determining efficiency, soundness, impact, problems, and solutions.

Implementation demands full commitment by the total district. Having achieved staff commitment and competency, in-service efforts

will show their worth at this juncture of the process. Staff can only use these new skills and knowledge if:

Superintendents, boards of education provide policy and budgetary and personnel support.

Supervisors help in the development and support the new educational design, its structure, and assistance needed for delivering.

Building principals offer a professional climate, process, time, immediate and ongoing support, and operational leadership.

Instructional staff help their peers in acquiring new knowledges and skills.

Learners know the rationale, sense the commitment, and are willing to participate fully.

Parents and other members of the community see results that match their previous program expectations.

Finally, the formative and summative evaluation procedures that have monitored installation, collected data, and assessed discrepancies should have involved all staff in appropriate activities. As the data are evaluated and communicated through in-service activities, implications for staff review and growth are present.

As the cycle is completed, the program and its staff have matured. Matured because all staff members were vital to the process and held accountable in accordance with their responsibility and contribution. Career education cannot be delivered by a segment of the operation; no one can be excluded. The real challenge of in-service is to make it happen and to permit all contributors to feel that they were instrumental to program arrival.

In preparing to design an in-service program for the Comprehensive Career Education Model (CCEM), we looked to some of the basic principles of successful in-service education. While many sources were reviewed and used, the following fifteen learner and learning concepts (as developed by Alfred Gorman in *Teachers and Learners: The Interactive Process Education*, Allyn and Bacon, Inc., 1969, pp. 13-14) served as the primary theoretical and empirical base.

1. Learners (and teachers) bring with them to the classroom a cluster of understandings, skills, appreciations, attitudes, and feelings that have personal meaning to them and are in effect the sum of their reactions to previous stimuli.

2. Learners (and teachers) are individually different in many ways even when grouped by ability.

3. Learners (and teachers) have developed concepts of self, which directly affect their behavior.

4. Learning may be defined as a change in behavior.

5. Learning requires activity on the part of the learner. He should not be passive.

6. Learners ultimately learn what they actively desire to learn; they do not learn what they do not accept or come to accept.

7. Learning is enhanced when learners accept responsibility for their own learning.

8. Learning is directly influenced by physical and social environment.

9. Learning occurs on successively deeper levels.

10. Learning is deepened when the learning situation provides opportunity for applying learning in as realistic situation as is feasible.

11. Learners are motivated when they understand and accept the purposes of the learning situation.

12. Learners are motivated by success experiences.

13. Learners are motivated by teacher acceptance.

14. Learners are motivated when they can associate new learnings with previous learnings.

15. Learners are motivated by teacher acceptance.

16. Learners are motivated when they can see the usefulness of the learning in their own personal terms.

Observing these learners and learning concepts in any in-service education program (and the resulting change in classroom practices) will contribute to the effectiveness of student learnings.

While developing the theoretical and empirical basis for the CCEM in-service program, it was necessary to review some of the experiences recorded in past national program attempts. During

the last decade and a half we have witnessed dramatic and substantial efforts to modify curriculum, guidance programs, and the operation of the schools. From these successes and failures of the past some generalizations can be made:

We have greater knowledge regarding desirable or appropriate methodologies.

We have reasonably well-defined developmental growth patterns for learners.

We have better ways of translating large goals into achievable educational objectives.

We have improved patterns, processes, and "packages" for combining the instructional elements that must be in place if gain is to be achieved and recorded.

We have technologies and strategies that can provide more alternatives and more options that consider learning and teaching styles.

We have better organizational schemes for grouping, monitoring and management processes, and instruments.

We have changed perceptions as to what can be done, what must be done if education is to serve both society and the individual.

We know that newness is not always goodness, and that sometimes the new is rejected because it requires change, not because it is inadequate or lacks purpose.

We know that curricular schemes require unprecedented staff development efforts at all levels. (The modest successes of the new math, new grammar, new social studies attest to that fact.)

In this list of "knowns" is the fact that career education is, or could be, the most complete and most comprehensive program in our history. It will only be realized if it receives total community, regional, state, and national support and commitment--support and commitment that will demand cooperatively teaming together in providing advice and resources for program design and implementation.

Teacher education institutions are a most critical partner in this team approach. The coordinated effort by all levels or segments of the educational enterprise is crucial. State departments of education and our universities can help by:

1. Assisting in the planning to provide coordinated, flexible use of resources, agencies, and procedures

2. Assisting in the development of rationale and techniques in establishing priorities in educational content, strategies, and environment as related to career education

3. Assisting in developing cooperative mechanisms regarding the placement of new teachers, counselors, and supervisors in situations that are relevant and productive for them and for the advancement of local district career education programs

4. Assisting in establishing standards and expectations as to what should constitute a good career education program for our youth

5. Providing new professional literature in all content areas that could be used in staff training

6. Assisting in the development of theoretical and practical models as to how career education can be incorporated into particular school programs

7. Providing systematic and sustained consultant help to local schools in their program efforts (Teachers, administrators, counselors, and others need your assistance while they are working towards their preconceived problems to develop the necessary understandings and skills.)

8. Modifying existing graduate and undergraduate (preservice and in-service courses) in accordance with career education objectives and learnings

9. Designing and providing specific programs and experiences for competency development essential to career education (Experiences that could be short but intensive in nature and designed to meet local school staff needs are urgent.)

10. Providing conceptual assistance in determining the relationship of career education to the total educational effort: curricular relationships as they relate to objective, content, learner alternatives, and experiences; instructional strategies and styles; program options and alternative structures

11. Exerting leadership in coordinating the efforts of local, regional, and state efforts to maximize productive approaches and minimize the superficial contradictions that exist in any large-scale movement in its initial attempts at development and implementation

12. Helping provide monitoring and feedback assistance so that local programs can be continuously modified in accordance with data obtained through program testing

However long, this list is not adequate. But it does suggest that career education cannot be realized unless a comprehensive planned and sustained effort is made--made with the full cooperation and participation of teacher and counselor educators.

Conceptual Career Education -- In-service Model

One of the exciting challenges of working with the career education school-based model at The Center has been the opportunity to design and pilot test an in-service model. It is challenging because we view the preparation of staff in implementing the career education approach to teaching children and young adults as the program element that could make the real difference between the success or failure of our career education efforts.

As we viewed our projects (K-12 curriculum, guidance and placement, evaluation, and community involvement programs) being conceptualized and developed, it was clear that new staff knowledge, attitudes, and skills would be needed for delivery of a career education system. These new attitudes and knowledge must then be transformed into changed professional behavior. We felt that these professional behaviors could only be realized and maintained if we involved local-level school staff members in the design and implementation of all phases of the career education program, including their own in-service program. We accepted the position that if in-service education is to be successful in affecting behavioral change, two very important conditions must exist. First, the program must be designed to meet the needs, interests, and concerns of the clientele it serves, and second, the clientele must have a voice in determining the ways and means that are used to alleviate their concerns. In addition, the program must allow for the modern processes of group dynamics, for practical approaches to identifiable problems, and for horizontal and vertical communication.

Organization

In developing an organizational structure that would be responsive to the needs of the clientele being served and provide for clientele input in the planning process, we suggested that two groups be established locally and made responsible for the overall planning and implementation of the in-service program. These groups were titled the Staff Development Cadre and the Staff Development Building Coordinators.

Staff Development Cadre. The cadre, as a representative planning and advisory group, would contribute to the professional growth of staff in several ways. As a group (representing the district administrative staff, teachers, and counselors, and utilizing consultants from nearby universities or colleges) their major responsibility should be to help identify the in-service education needs of all project personnel. By studying local needs, they would assign priorities and elicit community support and involvement as well as help in designing programs to fulfill those priorities. They would be very helpful in conducting many of the programs and eliciting for the total involvement and support of the staff. They could also assist with the preparation of the overall local staff development plan in concert with the guidelines established at The Ohio State University.

Although it was expected that membership on this committee would vary among local educational agencies, the following categories and number of personnel were recommended:

Career Education Staff -- at least the project directors and in-service leaders

Administrators -- four persons (a representative of the central administrator's office, a high school principal, junior high principal, and an elementary principal)

Teachers -- four persons (a representative of the teacher's associations and/or union and one each from the elementary, junior high, and secondary levels)

Counselors -- four persons (one each from the elementary, junior high, and secondary levels)

Consultants -- selected representatives from the community and nation, including parents, employers, and higher education staff

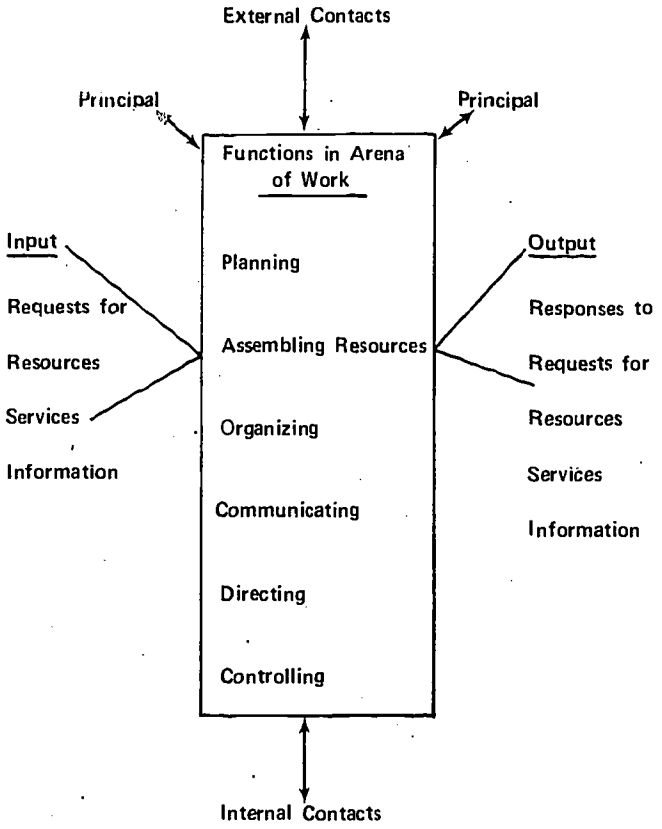
The membership of the Staff Development Cadre was to represent a cross section of those who will be eligible for in-service education and was to consist of highly respected leaders in the school and community. The cadre would provide leadership for a centrally coordinated program with adequate provisions for decentralized decision-making regarding specific in-service activities within each building.

Staff Development Building Coordinators. It was suggested that a master teacher from each school building within the project area be designated as a building coordinator to work with her or his building principal. This person is charged with giving leadership to all phases of the building in-service program and serves as a

liaison to the staff development cadre. Through released time, the building coordinators will be readily available to assist staff on a day-to-day basis during the installation phase. It was determined that, at least during our in-service education pilot test efforts, to assure that the program objectives were realized, one person along with the principal in each school should be responsible for planning, coordinating, and program implementation. The identification and use of local persons as coordinators also utilize the accumulated wealth of knowledge concerning building personnel and community resources possessed by these persons.

The work of the building coordinator generally can be categorized into six meaningful functions as shown in the center of the following schematic drawing prepared by Harland Sampson, professor education, University of Wisconsin at Madison, while he served as project consultant.

RELATIONSHIPS OF BUILDING COORDINATORS' FUNCTIONS TO INPUT AND OUTPUT OF THE SYSTEM



The building coordinator receives input primarily from the staff and administrators in his or her building. With the process that has been established, inputs will come in the way of needed resources, services, or information. While the building coordinators

respond to these requests, they will need to draw upon the talents and resources within the school buildings, within the school district as a whole, and within the community in general.

In helping the coordinators prepare for their task of directing their in-service programs, a special in-service program was designed for them. With only a limited time allocated for their functions within their buildings, they were instructed to manage only those activities related directly to the career education program. Staff requests that should be handled through regular school procedures were to be redirected or referred to their principal.

Six guidelines were offered to the coordinators in operating their program to allow the coordinators full utilization of school and community resources related to staff request for assistance. They are:

1. Is the request for a resource, service, or information related to instructional or an individual teacher need?

2. Is the resource, service, or information needed available within the school building, or will it come from an external source?

3. Is the output response needed immediately or can it be delayed?

4. Does the output response have value or potential use for only the requesting teacher or to others as well?

5. Is the request and subsequent response one of a single instance, or is it apt to be recurring?

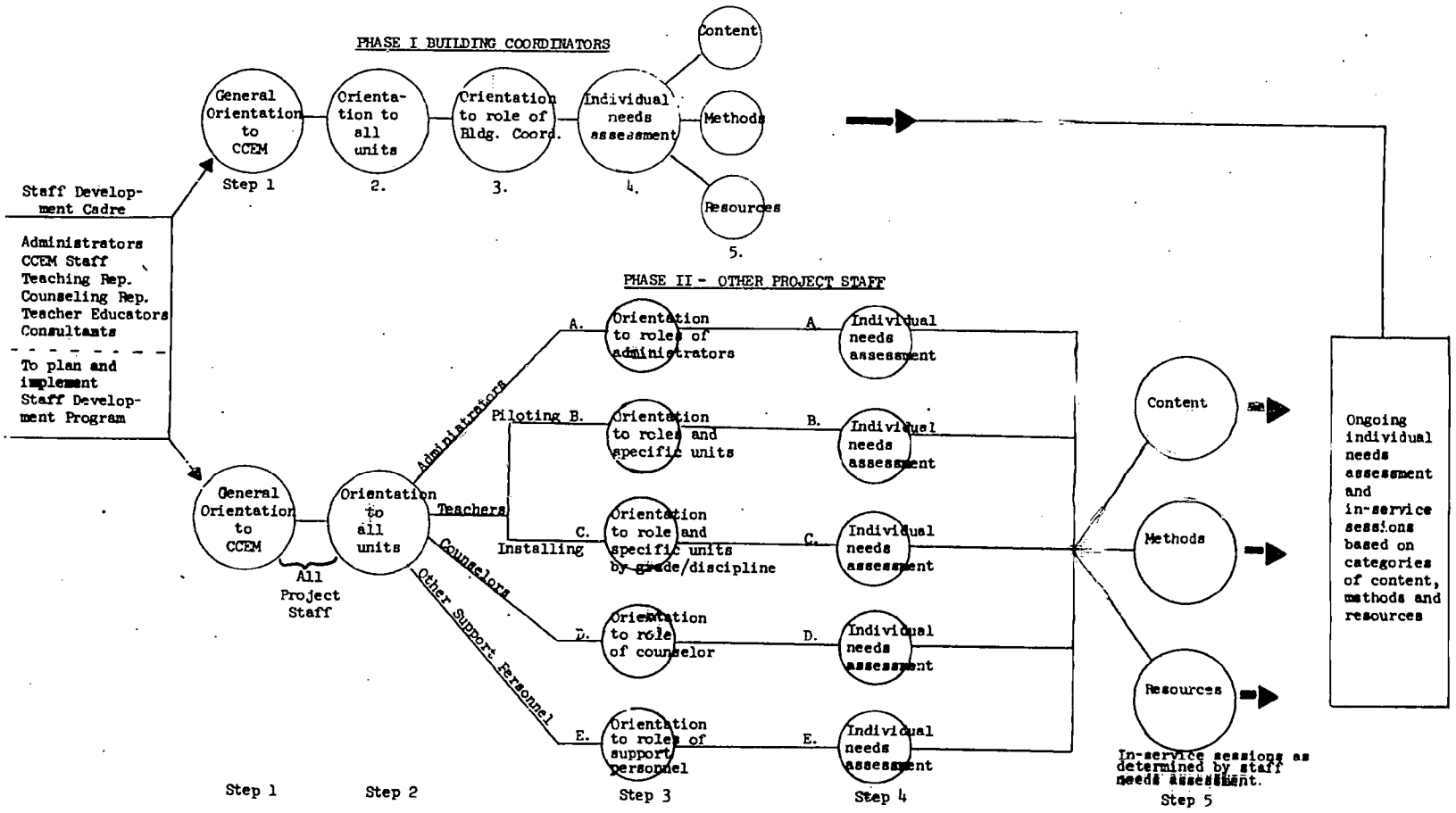
6. Is the request unique to this building or are other building coordinators apt to receive similar requests from their teachers?

Program Scope

The project staff development model was conceptualized as having two basic phases: Phase I for the building coordinators and Phase II for other project staff. Each consists of five similar steps as seen on the next page.

We have already discussed briefly the first phase, concerning the cadre and building coordinators. Phase II of the model is a suggested training sequence for preparing administrators, teachers, counselors, and other support personnel for their roles in the program.

CCEM STAFF DEVELOPMENT CONCEPTUAL MODEL



The first step in the sequence provided staff with a general orientation to the concept of career education and its antecedents. It was designed to help the entire staff perceive career education as a desirable model for public education by providing them the opportunity to share their ideas and concerns. It was also a time when the goals of the school-based model of career education would be defined and clarified and questions about the program answered.

For this general orientation process, several goals were identified as necessary:

1. To define career education and to identify the outcomes sought
2. To review development of the Comprehensive Career Education Model including the matrix
3. To clarify the roles and responsibilities of cooperating agencies (LEA, CVTE, USOE, and state department of education)
4. To explain procedures used for infusing career education concepts and goals into refined curriculum units
5. To clarify the roles of school and community personnel
6. To explain program installation and pilot testing procedures
7. To review the five support systems and their operations
8. To become familiar with procedures and instrumentation for evaluating CCEM programs
9. To develop and maintain positive attitudes toward CCEM
10. To obtain staff commitment to participate on the transitional phase of the program
11. To help staff perceive career education as an evolutionary development designed to better motivate and meet the needs of all students

The second step, which is where we are at this time, involves introducing to all staff the total curriculum being developed in CCEM for installation. The intent is to provide a broad overview of the way in which the curriculum is being packaged for their use and how the goals and units flow developmentally throughout all thirteen grades. The staff will become familiar with the developmental Matrix for Career Education and receive an explanation of the many elements, themes, and goals addressed by the curriculum and guidance units.

Step three involves orienting various homogeneous staff groups to their specific roles and responsibilities in the career education program. Tied very closely to this step is the opportunity for staff to assess themselves in relationship to their new roles and responsibilities and express these needs. A careful assessment by each staff member of his or her needs and interests should result in a more relevant and individually tailored staff development program.

As an overview of how we are addressing the unique concerns of each staff grouping, I will abstract the programs designed for: (1) Administrators, (2) Teachers, (3) Counselors, and (4) Support personnel.

Administrators. When a system adopts career education, the entire system and the work of every administrator will be affected. This will mean that all administrators must review and reassess their role. In this process of role analysis and refinement, they will find that new skills must be acquired, priorities reordered and established, and new working relationships with staff and students be developed. To accomplish the overall coordination of the administrative role, a process was established as a guideline. Realizing that this phase of in-service education deals with the district's decision-makers, we suggested that a select group of administrators lead this activity with the staff development project staff. This group would consist of the superintendent or his central office representative and one principal each from a senior high, junior high, and an elementary school.

Depending on the size of a district, this committee could (1) initiate the role orientation process themselves or (2) establish subgroupings of administrators each with a planning council to initiate the role orientation process. We suggested a sequence of activities or steps that could be followed:

1. Review present job descriptions. Add or delete words, activities, conditions, or specifications as necessary to accurately reflect current status.

2. List the different roles presently carried out. What "hats" does each administrator wear? Arrange these roles in terms of frequency and importance.

3. Conduct a symposium on the administrator's roles. Have an administrator from each level report his or her list of roles by frequency and importance. Discussion of roles by administrators would generate additional or forgotten roles, illustrate differences in roles, and clarify role relationships.

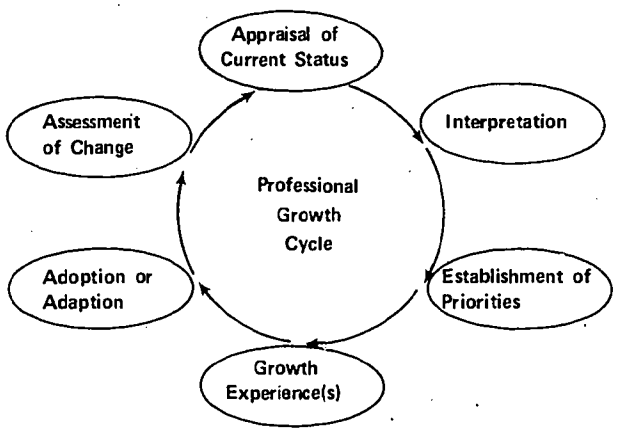
4. Establish what role changes will be necessary to implement CCEM. Once needed role changes are identified, rank them in order of priority (for example, which role changes must come first?)

5. Develop for each administrative role (individually or as a group) a list of the tasks that are performed in that role and what one must know and/or what one must do in the performance of that task.

6. Develop a list of suggestions or recommended actions, policies, procedures, or practices that would improve individual administrator effectiveness and efficiency.

This role orientation process then leads to the second major in-service area of concern that is the administrators' individual needs assessment. It was rationalized that with the adoption of career education the administrator who does not maintain his profession competence soon may be viewed as incapable of exercising appropriate leadership for decision-making and problem-solving. We felt that an excellent in-service model for administrators could be the Professional Development Cycle as seen in the chart prepared by Harland Sampson.

PROFESSIONAL DEVELOPMENT CYCLE FOR ADMINISTRATORS IN THE CCEM PROGRAM



This model permits individuals to establish their own priorities and to sequence and pace the growth experience appropriate to their current work schedule. Without going into detail about each of the six phases of the cyclical model, we felt that it offered an individualized and personally oriented form of in-service growth for administrators. It gives major responsibility to each administrator for establishing his or her own "contract" for upgrading, renewal, and enrichment.

Teachers. Realizing that in our career education model, the curriculum serves as a major vehicle to transport most of the program goals and objectives; thus, it becomes evident that the teacher is the key individual. So far the in-service program has offered teachers some general information about the career education concept and the partners involved in its design and implementation. The task is to provide further in-service experience that will permit teachers to significantly change student behavior in the classroom. We feel that the validity of the entire in-service program depends upon whether the changes in teacher's behavior produce more effective classroom learning around career development themes.

This Phase II of the teachers' in-service program labeled "Orienting Installation Teachers to their Role" in our suggested program is where we identified five major experiences that were necessary to prepare the teachers to play their role as an installer or implementor of career education. It is again important to point out that teachers are receiving career education curriculum units that they are responsible to install through total subject matter infusion in their classroom.

Step 1. Orientation to Their Role as a Career Education Curriculum Unit Installer

Through a variety of suggested activities the teachers would gain an understanding of the installation technique proposed for the program and the role they will play in the effort. Three major goals were identified to be fulfilled:

1. To understand and apply principles of effective interpersonal relationships

2. To develop a favorable attitude towards being a curriculum unit installer

3. To provide a basic understanding of their role in relationship to the total career education program

Step 2. Orientation and In-Depth Understanding of Specific Curriculum Units

The focus of this experience is to introduce teachers to their specific unit(s) so that they may become familiar with the units content and the strategies and resources required to deliver the career education concepts to students. Goals for this experience are:

1. Teachers will become familiar with the teacher's guide and the format and structure of the curriculum units.

2. Teachers will recognize the new content requirements and new instructional methods and resources necessary for installation.

3. Teachers will identify the major goals, rationale, and the basic content and skills that are emphasized in the unit.

Step 3. In-Depth Exploration of Instructional Unit and Its Relationship to the Total Career Development of a Student

While teachers are working with students at one stage in their life, it is important that they view how the career education experiences they are now having relate to the students' total career development process. This experience then provides teachers with the opportunity to recognize the contribution their grade level and/or discipline can make to the total career development of youth. The goals that direct this phase are:

1. Teachers will recognize that part of the total Career Education Matrix that these unit(s) deliver.

2. Teachers will recognize the developmental nature of career education and see the interrelationships of the curriculum.

3. Teachers will recognize the instructional foundations in career education that students lack and make provisions to provide them over and above CCEM units.

4. Teachers will acquire the ability to integrate career education into the existing curriculum.

Step 4. Teacher-Prepared Instructional Sequence

After the staff have an in-depth knowledge of the units for which they are responsible, the opportunity to mini-teach or experiment with them should be provided. Small groups of peer teachers are offered the time for planning and performing an instructional sequence that is related to their career education units. One purpose of this method is that that teachers would gain constructive feedback from fellow workers in an unthreatening environment.

Step 5. Evaluation of Career Education Units

Teachers will serve an important role in validating the career education curriculum being tested. They must become familiar with the instruments they will be required to use; they need to understand the rationale for them and realize the contribution they made in the development of career education

Individual Needs Assessment

Staff now know what is required of them related to the testing of a career education unit(s) in their classroom. They may now need assistance in acquiring new knowledge, skills, or resources to successfully implement. A process is established whereby staff can communicate with the in-service coordinators regarding their needs. Needs are then classified into broad categories as follows:

Unit-Related

1. Content
2. Strategies Methods (instructional, administrative, guidance)
3. Resources (acquisition, development, and utilization)

Non-Unit Related (examples)

1. Community involvement
2. Career information
3. Guidance and counseling support
4. Evaluation techniques
5. Pupil data

With this request system (See attachments A, B, C, and D, for suggested forms), the building coordinator can identify needs immediately and respond accordingly.

Counselors. The advent of career education as a new focus for total education provides an opportunity for all educational personnel, particularly school counselors, to extend and expand their understanding of guidance roles and their responsibilities for meeting the needs of all students. In this process, counselors may find the need for extended knowledge and understandings, for the reordering of old priorities, and for establishing new working relationships with students, teachers, administrators, parents, and community.

Through effective in-service experiences, we feel counselors can define the total set of guidance functions that are vital to success of the students' career development. The first suggested phase in this process is to provide for the extension and expansion of the counselors' understandings, knowledge, and skills related

to career development and career education. Experiences will be centered around four major categories. These are:

1. Student Growth and Development

   A. Entrance, transition, and adjustment in elementary and secondary schools

   B. Career planning as a lifelong process

   C. Career preparation--basic skills development and job preparation skills

   D. Self as an object

   E. Self in relationship to others

   F. Self in relationship to the environment

   G. Economic awareness

2. Assessment Tools and Techniques, Programs, and Resources

   A. Occupational and industrial structure

   B. Individual and group assessment

   C. Career information system

   D. Pupil data system

   E. Placement and follow-up system

   F. Community resource information systems

3. Counseling and Guidance Methods

   A. Review of traditional counseling and guidance techniques

   B. Search for emerging strategies in the field

   C. Consultation techniques that could apply while working with parents, teachers, administrators

4. Determining Role (primary and secondary roles and responsibilities)

Through in-service the following procedures were identified as key for role definitions:

A. Assess students' needs and situational variables.

B. Select from career education relevant goals and objectives that could meet these needs.

C. Decide how these needs might be best met.

D. Identify primary and secondary roles of staff.

E. Identify assessment tasks and techniques.

F. Establish program and process priorities.

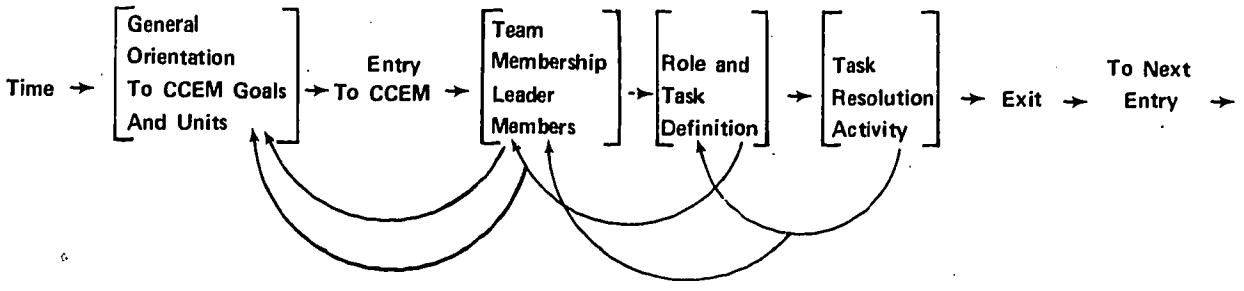
G. Establish appropriate evaluation procedures.

This process is considered one that counselors should conduct periodically over the years. Coupled with this, the counselor should perform a needs assessment and communicate his needs to those available to assist in his own professional and program growth.

Support Personnel. Orientation of support personnel must be viewed as an ongoing process. It's important that whenever individuals enter the program they should be cycled through the orientation process. People who are not intimately connected with a program frequently do not have a complete grasp of the program goals and organization.

They may feel like outsiders with regular staff and students and may not feel confident about the contributions they are making or could make. Thus, it is important that a systematic process be devised to orient support personnel as they appear on the scene, to get them involved and identify them as a part of the team, and to obtain and monitor feedback regarding their role perceptions. The chart below (prepared by Harland Sampson) indicates the nature of this suggested process.

ORIENTATION MODEL FOR SUPPORT PERSONNEL



Continuous Program In-Service

The in-service activities to this point have given staff the initial competencies to begin to implement their role in career education. We all know, as educators, that this task of professional development is a dynamic, long-term activity, involving a continuing response to assessed staff needs.

In most cases this individually tailored ongoing in-service program will be the most demanding and time-consuming task. It will demand the development of numerous in-service programs and materials designed by small and large groups and by individuals. If professional staff development is individually tailored and continually revised (based upon the self assessment), a great deal of planning and coordination will be required on the part of the staff development cadre and the building coordinators as well as the participants.

This model demands that not just a few persons be involved in program delivery but that all staff utilize their unique talents in assisting fellow workers in their professional development. It also recommends that not just a few persons be involved in program delivery but that all staff utilize their unique talents in assisting fellow workers in their professional development.

This portion of the program is designed to be flexible in its scheduling, resources, and emphasis. Its direction will come directly from staff-expressed needs through requests for assistance.

In general, there are two major areas on which this portion of the staff development program will focus. One area involves those initial needs related to curriculum (career education units) such as its new career education content. This portion of the staff development program also involves assisting the staff to use the new teaching strategies that are part of the career education curriculum. Equally important is the area that involves the in-service education of staff on the unique materials and resources identified in the new curriculum.

The second major area considers the staff needs related to the support program designed to assist staff and students in meeting their career education objectives. As one is involved in program delivery, he or she will find needs related to: (1) Community involvement strategies, (2) Use of pupil data for effective teaching, (3) Team relationships with school counselors, (4) Career information program, and (5) Evaluation techniques, and procedures. These needs will be ongoing and no uniform program can be structured. Through a continual staff reassessment program design, in-service activities will be centered around the recently cited needs of individual staff members.

Ways of meeting these individually cited needs will include self instructional packets, resource persons, resource centers, and programmed instructional modules. Besides using the newest individual- or self-learning techniques, mini-sessions (such as workshops, seminars, clinics, small group problem solving activities, etc.) will be utilized to provide maximum opportunities for exchanging ideas and for revealing and reviewing new learning experiences. In summary, the following six goals best express the intent of this step of the new staff development process:

1. Insure that all staff involved with the delivery of career education are continually informed of the rationale and methods of infusing career education into the existing program.

2. Provide needed assistance to staff regarding any new career education content that is being built into the program.

3. Provide ongoing needed assistance to become competent in utilizing specific techniques being designed within the program.

4. Provide information about the resources that are available and opportunities to develop needed materials that do not exist.

5. Provide time and setting to interface with other staff to exchange knowledge, opinions, and questions during the implementation phase.

6. Keep staff advised as to support programs or materials that will assist them in meeting their instructional objectives.

As a professional effort, one cannot try to design a staff development program set out to change people. To even attempt this would be arrogant and presumptive. Rather, staff development programs designed for career education can and must help people change--change their perceptions towards:

The changing goals of education - career education

The role of the classroom, home, school, and community

New curriculum content or modifications needed for change

The instructional, counseling, and guidance strategies needed to be considered

The nature of the personnel and the curriculum and guidance resources to be utilized

The outcomes or goals to be achieved

The relationship of the classroom and the community in carefully preparing program objectives, materials, learning experiences, and evaluation of outcomes

The need for a systematic review of the past and present efforts made in this area of career education

In trying to summarize the approach we're attempting at The Center for our comprehensive Career Education Model, I would like to end with a set of general operational considerations for a staff development program.

Again, our program design takes into account the fact that situations and personnel differ so much that a prescription is not possible (or desirable) regarding procedures, components, or discrete aspects. However, experimentation in recent years, as well as our present attempts and findings, provides a basis for some useful criteria.

1. There must be evidence of administration and board policy support; staff development must clearly be a priority. The district including the project personnel must assist in the development of a climate and a commitment if career education is to be achieved.

2. The program rationale and objectives must be stated clearly; there must be an obvious relationship between what staff are presently doing, and what is to transpire. The related evaluation process should be delineated (including related research and instrumentation).

3. Professional and support staff members must know how and when to participate and relate to the program. A participatory-peer structured developmental approach is recommended. There should be multiple avenues for involvement to accommodate different styles, different stages of development and different entry or achievement opportunities.

4. There must be adequacy and coordination of the materials to be used. This is necessary to maximize understanding that minimizes personal risk. Progress regarding support features such as equipment or building modifications should be explicit and timely.

5. Relevance and realism for all staff are necessary. This relates to certification, status, attention, time, income, and especially to the ongoing tasks for which the staff member is accountable--knowledge gain, skill acquisition, quality of work, professional role and expertise.

6. A reasonable plan for the achievement of the desired objectives must include short- and long-range goals, time frames, stated management expectations and interventions, and processes for program modification. Back-up support and/or alternative routes are helpful.

7. Leadership and role responsibilities for all staff members should be defined. Leadership should be determined on the basis of competency and accountability rather than status *per se*.

8. Communication flow and feedback must be a part of the process and program. Lack of feedback regarding performance gain or modification causes turbulence and reversion; this includes learners and the community as well as the staff members who are involved. It is more difficult, but also more essential, when interaction involves non-school agencies, businesses, or institutions.

9. Sufficient time must be provided--time for change, time for development and accommodation, time within the priority hours for activity. If the program is an add-on, if it occurs only during "off" hours or days, then all of the above elements including support and commitment are negated.

10. Support and modification must be observable in all components of the program. A single change or thrust will be rejected or isolated by the routine, ongoing practices and procedures. Professional and personalized staff development programs must be systemic as well as systematic.

To date no magic formula has been developed by which national priorities or instructional improvements become operational in our schools. As an institution at the crossroads of every significant movement, schools are subject to multiple and often contradictory values. Both the desire to change and the reluctance to change are always with us, as are the institutions and bureaucracies whose personnel reflect wide orientation differences. These factors, and others well known to us, combine to make staff development for any consequential change a formidable challenge.

This is a challenge to all of us, especially those of us here today that have played and will play a major role in the designing

of education for the 1980's and the preparation of staff to carry it through. No one person or role is adequate to the task. What is needed is a consortium of effort from all sectors and subsystems of education, each operating according to the responsibilities assigned, each supporting the total effort in our appropriate ways.

ATTACHMENT A

Form For Individual Assessment of In-Service Needs Related to Resources Utilization and Development

Name _____

Unit Title _____

Date Unit Will Be Implemented _____

	Resource Acquisition	Learning Activity Where Used	Check If Assistance Desired
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	Resource Development	Learning Activity Where Used	Check If Assistance Desired
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

ATTACHMENT B

Form for Individual Assessment of In-Service Needs Related to Unit Content

Name _____

Unit Title _____

Date Unit Will Be Implemented _____

	Content Area	Learning Activity Where Used	Check If Training Desired
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

ATTACHMENT C

Form for Individual Assessment of In-Service Needs Related to Unit Strategies

Name _____

Unit Title _____

Date Unit Will Be Implemented _____

	Strategy or Task	Learning Activity Where Used	Check If Training Desired
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

ATTACHMENT D

Form for Individual Assessment of Non-Unit Related Needs

Name _____

Position _____

Content or Strategy

1. _____

_____

Why training is necessary: (personal comment) _____

_____

_____

2. _____

_____

Why training is necessary: (personal comment) _____

_____

_____

3. _____

_____

Why training is necessary: (personal comment) _____

_____

_____

4. _____

_____

Why training is necessary: (personal comment) _____

_____

_____

5. _____

_____

Why training is necessary: (personal comment) _____

_____

_____

Possible Changes in Teacher Preparation Programs

By Dallas G. Ator*

Let us assume that there are two components in the graduate programs of institutions of higher education endowed with the responsibilities of preparing master teachers, teacher educators, supervisors, administrators, counselors, and others. These components would be: (1) the major component of subject matter, and (2) the education component or the content to prepare professional educators.

My presentation will address the question: "What changes do I see in these two components in order to implement the career education concept in graduate programs?"

If we assume that an expected product of career education is an individualized, logical, and acquirable career plan for every student that meets his or her own need, then we are able to identify specific products of curriculum that educators need to deliver in their interactions with students and others in the entire career education process.

An ideal career plan is made up of a series of sequential and logical decision points within an individual's life experiences. Goals of career education are to assist each individual to develop those attitudes, awarenesses, skills, and knowledges that enable him or her to make these decisions intelligently. The personal desires of each individual will influence each decision made.

If we accept the hypotheses that: (1) career education is education in totality, (2) it is a basic responsibility of schools to help students to understand all of their career plan options, and (3) it is a basic responsibility of schools to provide them with necessary expertise to implement such options, then we, as career educators, must:

1. Relate curriculum products to individual career plans

2. Identify and provide ancillary services necessary for the successful achievement of career plans

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3. Help students to utilize these services consistent with their personal attitudes and skills

4. Help them to appreciate the opportunity to make individual career choices early in their careers

Now, let's talk about our role as educators in the light of these assumptions and hypotheses. The role of master teacher will be somewhat different from that of a teacher educator or from that of a counselor, administrator, supervisor, or others. We are able, however, to identify certain graduate-level training program goals that are common to all classifications of educators (I'll use the encompassing term "teacher" to include all of the various educator classifications from this point) in the various processes of career education. Some of these are:

1. Teachers must be made aware of the basic fundamental concepts of career education. An example is the notion of preparing students for jobs and the world of work. For additional reference on this subject I offer to you the following text: *Career Education--Perspective and Promise* by Keith Goldhammer and Robert E. Taylor for a very complete discussion of career education concept, issues, problems and trends.

2. Teachers must become more competent in the development and utilization of performance based curriculum. These competencies include: processes of analyzing goals; deriving, preparing, utilizing, and validating instructional objectives; developing alternative learning activities, including remedial and enrichment activities; and utilizing evaluation strategies that measure all types of behavior.

   Career-oriented curriculum, related to all disciplines, must contain teacher-learner activities with emphasis based upon real-life experiences of adults. This points up the necessity for basic attitude changes in some teaching methods by moving away from teaching soley subject matter content to the preparation of students for life experiences. Activity-centered exercises are needed that will provide students with real-life experiences.

3. Teachers are living in an age of responsibility and accountability. Related to this is the whole new realm of cost benefits for educational management and managerial decision-making. Tax payers are asking for and deserving answers to such questions as: What is the actual cost of specific curricular programs? What are the related benefits and products of these programs? Teachers must be able to deal with data processing services and cost-benefit analysis to adequately answer these questions.

4. Teachers need training in the strategies of how to involve community resources in a career-oriented curriculum. Generally, we in education have done a poor job of recognizing and utilizing community resources. Career education requires community involvement through activities such as: using resource speakers and demonstrators; soliciting the cooperation of business and industry in developing cooperative educational programs, advisory committees, field trips, and work-study programs; and utilizing parents with special expertise as classroom aides and in other paraprofessional positions. Community involvement should be a two-way interchange with the school going out into the community and the community groups coming into the school.

5. Teachers should be thoroughly introduced to the teacher-counselor, teacher-advisor role of the counselor as a resource person. Guidance programs take on a new look in career education, with an expanded set of ancillary services. Some of these involve career information centers, career placement systems, educational placement systems, and special educational services. Teacher strategies and techniques for maximum use of these services is a major requisite for individual student benefit.

6. Add to these the need for teacher introduction to the new materials, professional and instructional, that are being generated daily. These materials are appearing on the commercial market, many of them coming from research and development projects.

In summary, teacher training thrusts in all these areas need to be presented at four levels, to new teachers who are taking their initial training in the institutions, to "on-the-job" personnel for orientation and upgrading, to paraprofessional assistants, and to business, industrial, and technical personnel.

In conclusion, I will say that in general, graduate teacher training programs need to get out of the ivory-painted walls of academicism and get more into the pragmatic functions of teachers.

Imperative Changes in Vocational and Technical Professional Development Programs and Activities

By Rutherford E. Lockette*

This paper purports to outline some of the considerations that vocational education in general and vocational and technical professional development must take into account now and in the immediate future. Strengths and weaknesses of vocational and technical professional development will be pointed out. Finally, changes that will take place in vocational and technical professional development programs and activities will be presented and discussed. Considerations that vocational education must take into account will be presented as assumptions or facts.

Some Considerations Educational Professional Development in General and Vocational Professional Development in Particular are Facing

1. Highly educated individuals, notably engineers, scientists, and a number of individuals in the liberal arts fields are finding their preparation out of tune with the current need. Colleges and universities are being asked to develop special programs to reorient them to existing occupations.

2. Youth in colleges and universities, high schools, and junior high schools, are finding their education uninteresting and irrelevant to their needs. Alienation expressed in the past by those in lower class groups is now being clearly expressed by those in middle class and upper class groups.

3. Financial support for higher education will not be increased in the foreseeable future, despite the increasing need. Therefore, competition for funds among departments and within departments will be fierce.

4. Minority group leaders will begin to pressure vocational education to provide for the needs of their charges as the relationship between vocational education and the improvement of individuals becomes clearer to them.

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5. Minority groups will continue to ignore vocational education.

6. Other agencies and institutions (private schools, industry, the labor department and others), will continue to vie for dominant roles in vocational education.

7. The Smith-Hughes Act will continue to be the dominant influence in vocational education.

8. Vocational education funding will be based more and more on evidence of accountability.

9. Women will continue to demand equal status with men. They will require training provisions as well as a fair share of the professional positions in vocational education.

10. The need for appropriate vocational education in elementary and junior high schools will become more evident.

11. Articulate spokesmen for the liberal arts will continue to have a strong influence at all levels of education.

12. There will be continued pressure for vocational education to provide for the full range of ability and for all conditions in which individuals find themselves--the poor, the rich, the handicapped, the disadvantaged, the criminal, the normal, and others.

13. The rapidity of change will continue at an unprecedented rate as described by Kransberg, Toffler, and others.

14. Effective vocational education programs in competitive foreign countries, notably Japan and Germany, will continue to be viewed as possible examples for similar programs in this country.

The Importance of Utilizing Vocational Education as a Means of Improving the Life Chances of All Individuals

Vocational education has helped numerous youth and adults prepare for, enter, and progress in the world of work. The importance of vocational education as a means of improving the life chances of all individuals is well known by this group. The Panel of Consultants on Vocational Education, in referring to the achievements of vocational education, noted that:

> Approximately two-thirds of the trade and industrial education graduates in the North Atlantic region

found employment in the occupational field for which they trained. Data for the North-Central region show some 56 percent of the graduates similarly employed five years after graduation. Percentages are somewhat higher for graduates of cooperative part-time programs.

Throughout its development, the field of industrial education has contributed significantly to the development of our culture. In the main, its rapid development can be attributed to encouragement resulting from federal financial support. The fact that state and local governments have given their seal of approval to vocational education can be noted through increased support. This support for the total field of vocational education can be illustrated by noting that ' . . . federal financing grew 125 percent during the 20-year period from 1940 to 1960, while the local and state government financing grew 452 percent.'

It is worthy of pointing out that only five percent of the trade and industrial program graduates were unemployed in 1959 as contrasted with 15 percent of all high school graduates in the United States. In addition, 'The North Atlantic study suggests that approximately seven out of 10 student graduates available for employment actually enter an occupation for which they are trained.'

The earnings of industrial education graduates are, as would be expected, in relationship to the length and level of sophistication of their program. Graduates of industrial education programs earned $2954 in 1960. Those who completed a two-year industrial technical course as part of their high school education earned $3990 in 1961, while those who completed a two-year post-high school technical education program earned $4600 in that same year. (3)

The panel of consultants also noted that other studies "indicate that slightly more than 40 percent" of the agriculture graduates, approximately half of the secondary school graduates, and about two-thirds of the post-secondary school technical program graduates found employment in the field for which they trained. Additionally, forty-three to sixty percent of distributive education graduates were similarly placed.

The Advisory Council on Vocational Education was established as a provision of the Vocational Education Act of 1963. The major purpose was to evaluate the results of vocational education and to report their findings and recommendations by January 1968. In reporting their findings, the Advisory Council: (1) found an

enrollment increase of 13.3 percent in vocational education enrollment in 1967 over that reported in 1966. The total enrollment in 1967 was 6,880,000 or fifty percent higher than the enrollment of 4,566,390 in 1964. The advisory council cautioned that the total enrollment figure reported in 1967 included office occupations. These figures were not included in 1964. They were first reported in 1965 and added 730,904 persons to the enrollment in vocational education that year.

With regard to groups served in 1966, fifty percent were high school students, forty-two percent were adults, seven percent were post-secondary students, and less than one percent were students with special needs. The 1966 enrollments, compared with those of 1964, show an increase of forty-two percent in secondary, seventy percent in post-secondary, and seventeen percent in adult programs. Special needs enrollments were not reported in 1964. Increases in enrollments between 1964 and 1966 by occupational categories were: five percent in agriculture, twenty-five percent in distributive occupations, forty-one percent in health occupations, five percent in home economics, fifteen percent in technical occupations, and twenty percent in trade and industries. Comparison data for 1964 were not available for office occupations programs.

In summarizing the discussion on increases in enrollment in vocational education, the advisory council stated: "The enrollment data indicate that more persons were being prepared for work through vocational education programs than prior to the enactment of the Vocational Education Act of 1963. In 1966, 31 persons per 1,000 of the total population were trained or retrained for an occupation in a federally funded program as compared with 21 persons per 1,000 in 1961." (1) This increase is in line with the recommendations of the Vocational Education Act of 1963. The advisory council further noted:

> While in the school year 1963-64, one out of five high school students was enrolled in vocational training; in the year 1965-66, the ratio rose to one out of four students. However, the largest part of this increase must be credited to the new office occupations category . . .
>
> One cannot escape the conclusion that the growth in enrollment, particularly at the high school level, reflects to a large degree the inclusion of persons who were not formerly counted as vocational students. Apparently, the breakthrough for training more persons for more occupations is yet to come.

These and other facts attest to the worth of vocational education. Increased financial support for vocational education at the federal, state, and local levels gives further evidence of the confidence held by many that vocational education can improve

the life chances of all. The problem, then, is to provide for the vocational education needs of all who can profit from it.

Gearing Vocational Education Programs to All Who Need and Can Profit From It

Vocational education programs generally receive a good rating when one looks at the accomplishments that have resulted from these offerings. However, when examining the groups that vocational education could have served, much is left to be desired. The national advisory council stated that:

> In summing up accomplishments, or their lack, one constantly must be aware that insufficient time has passed to permit the new law to be fully implemented. The impact of changes is clearly visible in some areas and, thus, credit should be given for achievements. In other areas, the objectives of the new law have not yet been accomplished, and a faster pace is in order.
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> The Vocational Education Act of 1963 introduced two new basic purposes into the nation's vocational education system: First, vocational education was to serve the occupational needs of all people in the community through unified programs rather than to train them in separate programs for selected categories. Second, a new group was to be served--the persons who could not succeed in a regular vocational education program because of educational, socioeconomic, and other obstacles. There is little evidence that either of these major purposes has been accomplished so far.
>
> The second main objective--to serve the youths with special needs--has hardly been touched. (1)

The advisory council should be considered friendly but objective in their observations and recommendations. Many individuals who have no vested interest in vocational education have been studying these programs with equal vigor. One such group is the powerful Committee for Economic Development. Its report observes that:

> The statistics we have presented earlier indicate that the need for remedial training far exceeds the number of training opportunities made available up to now. We urge the continuation of special remedial and job training programs for the indefinite future. Although we do not attempt to define precisely the amount of the effort, nor its place in the scale of national

priorities, we believe that an increased manpower development effort should have priority over a reducation of taxes.

Special attention and possibly major changes are required to combat the high rate of unemployment among young people, particularly the disadvantaged. Among the needs of young people are early opportunities to observe occupations, better information concerning career choices, continuing vocational guidance, opportunities for combining school and work, freedom to leave school early in order to take jobs (for those who feel they do not benefit from classes), job opportunities for these dropouts, and much patience with unstable students. Also needed are ways of motivating young blacks and other minority group members to view employment as a source of satisfaction.

Special attention should also be given to the provision of more adequate training for those in penal and correctional institutions. Only a small percentage of this group, which numbers about 1.5 million at any given time, receives any significant training, particularly training which enables them to find legitimate and useful jobs when they are released.

Remedial training to assist the disadvantaged into the economic mainstream should include both training by specialized institutions and on-the-job training, and should be directed at both public and private employment. Each type of program meets particular needs which cannot well be duplicated by the other.

Because the need for remedial training arises primarily from the failures of the regular education system, we believe that development of general training programs outside the regular system should continue to be supported, until such time as the public and vocational schools themselves demonstrate the capacity to perform adequately in educating the disadvantaged. (2)

Weaknesses in vocational education have been drawn to our attention by those from within our ranks and those from without. Vocational educational programs and services have not been criticized for what they are accomplishing but for what they are not accomplishing. The only thing that can be done to eliminate this criticism is to study very carefully the Report of the Panel of Consultants on Vocational Education (5), the Report of the Advisory Council on Vocational Education, as well as the Vocational Education Act of 1963 and subsequent legislation, and develop strategies to implement the letter as well as the intent of these works.

Changes in Undergraduate and Graduate Vocational and Technical Professional Development Programs

The Vocational Education Act of 1963 pointed to two serious weaknesses in vocational education programs: (1) Vocational education programs were not equally available to all who needed and could profit from them, and (2) Vocational education programs were not adequately representative of the expanded and expanding labor market.

The Advisory Council's Report (1) noted that vocational education programs showed "little evidence that either of these major purposes has been accomplished so far." At first glance, teacher educators may feel that the criticism of vocational education is directed only at secondary, post-secondary, and adult education. However, vocational and technical teacher education must accept the brunt of the criticism and mobilize its forces to assist secondary and post-secondary school programs to meet their objectives. In keeping with new legislation, colleges and universities must also take the leadership in assisting in the development of appropriate vocational education programs for elementary and junior high school (including the middle school) youth, with particular emphasis devoted to those with special needs at all levels and in all programs.

Any criticism of vocational and technical education must be accepted by vocational professional development programs. Virtually all of the administrators, supervisors, guidance personnel, teachers, and others responsible for the conduct of secondary and post-secondary vocational and technical education programs are the products of vocational professional development programs. If our students have failed (secondary and post-secondary personnel) in any way, then we (teacher educators) have failed. Stated differently, if the learner has not learned, the teacher has not taught.

Professional development programs must make a number of changes if they are to assist secondary and post-secondary school programs fulfill the mandate of the Vocational Education Act of 1963 and subsequent legislation and if it is to measure up to the dynamics of our super technological society. A number of the changes that must be made are presented in the following pages.

1. Vocational professional development programs must become comprehensive offerings that produce the personnel required to expand the occupational preparation opportunities to new and emerging fields. The Advisory Council on Vocational Education made reference to a shortcoming in the organization of vocational programs. The council stated that " . . . vocational education was to serve the occupational needs of all people in the community through unified programs rather than to train them in separate programs for selected occupational categories." (1)

Secondary and post-secondary school programs have paid little attention to this provision of the Vocational Education Act of 1963. However, more progress has been made at these levels than has been made at the level of vocational professional development. It has been noted many times that students who complete an educational program behave in a manner that closely resembles the teachers and other professionals with whom they come in contact. Colleges and universities like to believe that they do have some influence on secondary and post-secondary vocational education programs. The fact that they do exert influence would not be denied by many.

Only a handful of vocational professional development programs have become truly comprehensive. Another handful are wrestling with the problem. The great majority of the professional development programs are comprehensive only on paper, and there is little or no interaction and cooperation among the faculty. Considerable duplication of effort results, and the opportunity for professional development programs to set examples for all other vocational education programs is lost.

The problem of converting existing professional development programs from distinct categories within vocational education is indeed a thorny one, but it is one which can and must be solved. Some of the following factors may be helpful to those who wish to develop a truly comprehensive program.

A. The faculty members who will participate in a comprehensive program must agree on the overall direction and objectives of the program. Care must be taken by the chairman, who is presumably the leader, to spend sufficient time in faculty meetings to seek agreement and/or alter directions in a sincere effort to seek concurrence on direction and objectives.

B. Faculty members should be made to feel secure in the transition from a traditional program centered around occupational categories to a unified or comprehensive program that serves all occupational categories in vocational and technical education.

C. Care should be taken to assure each faculty member that his concerns with reference to his categorical specialty are not lost in the transition.

D. The level of aspiration of faculty members should be treated to result in their being realistic with their goal setting. The faculty member should not be expected to perform as he did in the traditional program during the early stages of the conversion to a comprehensive program. His performance will be expected to improve with practice as in skill development.

E. After the overall direction and objectives of the program have been agreed upon, each faculty member should be involved in the development of the details of the program to the highest degree possible. The chairman or any other faculty member should be encouraged to input innovative ideas at any point.

F. Appropriate administrative officials in the college or university should be asked to work with the department in the development of a comprehensive program. In many instances, administrators will be helpful to the chairman in getting faculty members to understand the need for comprehensive programs. Moreover, the administration will be made aware of this development. This can be expected to result in greater acceptance of the idea on part of the administration.

G. The chairman should be sensitive to the problems and frustrations of the faculty during the period of transition. He should take steps to assist in the solution of the problems and the reduction of frustration as indicated. Consultants should be employed as needed.

H. The staff must have a high regard for each other, both personally and professionally. Unless a high degree of *esprit de corps* exists among the faculty, the development of a high quality unified or comprehensive vocational professional development program is not likely.

I. A careful inventory should be taken of effective aspects of the existing programs to assure that they are not lost in the transition. "Let's not throw out the baby with the bath."

J. A time line drawing should be developed or the Program Evaluation Review Technique applied to assure the development of a comprehensive program within a reasonable period of time.

It must be remembered that the leader is adapting to a new program. However, careful consideration of the preceding factors should assure a successful outcome.

2. Vocational professional development programs will be geared to all of the children of all of the people as well as to the total adult population with particular reference to women, minority groups, and the handicapped in the foreseeable future. The Advisory Council on Vocational Education also made reference to another shortcoming in vocational education programs. The council stated that the " . . . objective--to serve the youth with special needs--has hardly been touched." (1) The failure of

vocational education to respond to this mandate has drawn the most severe criticism ever levied against this field. Indeed, the control of vocational education has been challenged. In all probability, this is not the last to be heard on this subject.

Again, vocational education personnel have been prepared in professional development programs where neither the general professional nor the vocational professional courses and experiences have seriously considered providing for the total range of ability. If vocational education personnel are to develop competencies to deal with the full range of ability, particularly the poor, minority groups, women, and the handicapped, vocational professional development programs will have to be altered along this line.

The failure of vocational education personnel to be encouraged to work with these groups relates in large measure to the myths, half truths, and misunderstandings that they hold with regard to them. Moreover, it must be known that the Kerner Report (6) and every other study of racial disturbance in America has found a common thread, that of racism among American citizens. It is unreasonable to expect vocational education personnel to be free of this flaw at any level.

Lockette (4) reviewed the literature on vocational education for the urban disadvantaged. Considerations that were drawn for their implications for vocational education programs were cited. Vocational professional development programs must prepare professionals to implement effective programs along these lines. The considerations cited presented in their entirety:

Important Considerations in Developing and Operating Vocational Education Programs for the Disadvantaged

The number of problems which face the disadvantaged are numerous and varied, as has been noted throughout this report. Many of the factors which deter the disadvantaged from entering into educational programs and employment opportunities are interrelated. Accordingly, the treatment of a single or a limited number of these factors is of little or no value in improving preparation for work. In fact, limited attention to the factors which handicap the disadvantaged results in their losing confidence in the programs which are inadequately designed to meet their needs. Vocational programs which are designed to prepare the disadvantaged for work, therefore, must provide the means of accommodating the successful practices and the recommendations consistent with research and developmental efforts. Considerations which should be given high priority in vocational programs are presented below:

1. The philosophy of the vocational education program must be founded in meeting the needs of those it serves, and the individuals and groups served by the program must perceive it as meeting their needs.

2. The vocational education program must be functionally rooted in the community. This calls for meaningful involvement of community representatives at every level of planning and implementation.

3. An overall advisory committee should be established with a membership representative of the businesses, industries, health services, and other institutions and agencies which vocational education serves. Institutions and agencies which relate to and have implications for vocational education should likewise be included. Finally, a number of laymen from the community served by the vocational program should be included to facilitate communication between other members of the advisory committee and the community at large.

4. Craft committees should be employed in each vocational education program area. Persons who are thoroughly familiar with current skills and technical requirements, as well as trends in the occupational area, should be selected.

5. The attitudes of teachers and other professional personnel should be treated in such a way as to enable them to understand the disadvantaged. This will cause them to modify their behavior and to be more effective in working with the disadvantaged.

6. Teachers should be given specific preparation in integrating into the vocational education courses the content of different fields such as English, Mathematics, Sciences, and Reading. They should be given support in this process, and they should be supported in perfecting techniques in applying content so organized.

7. The use of differentiated staffing is badly needed. Persons who are indigenous to the community will be extremely helpful as members of the staff.

8. New and innovative efforts which are effective in attracting the disadvantaged should be adopted and/or developed.

9. Vocational education programs for the disadvantaged must be geared to provide preparation for work in the shortest time possible. The operational goals of the programs and the preparation for work must meet the needs of the persons served.

10. A systematic orientation program should be developed to clarify the nature of work, the value and outcome of work, and the total operation of the training and placement of graduates on jobs.

11. Effective counseling services are essential. The total vocational program should have established relationships with institutions and agencies as health services, welfare services, child day care centers, and employment services which offer assistance in areas of disadvantaged persons' needs. This will enable the counselors to be more helpful in working with students. As counselors become truly helpful, students will perceive the total program in a more positive light.

12. Vocational education programs for the disadvantaged should be flexible and quickly responsive to the needs of the disadvantaged as viewed by them. The best match possible should be made between the occupational aspirations and skills of the disadvantaged and available jobs. Where indicated, jobs should be developed to accommodate these individuals. Moreover, career ladders should be developed to enable them to gain access to advanced positions as their aspirations and preparation suggest.

13. Content should be structured into instructional modules. Only those modules which will lead to job preparedness should be employed in any given case.

14. The application of techniques which will result in the disadvantaged changing their self concept is essential to their success.

15. Cooperative education experience should be employed as a supplement to vocational education programs to the greatest extent possible.

16. Course content and activities should be exciting and relevant to the students' occupational goals.

17. Instruction should be individualized to the highest degree possible.

18. Basic education should be closely related to job preparation, and the relationship should be made known to, and be understood by, the students.

19. Relationships should be established with employers to encourage them to provide the support for disadvantaged graduates of vocational programs which is needed to assure occupational adjustment.

Certainly all of the considerations of importance have not been noted. Massive research and developmental efforts are required to develop the ability to work effectively with the disadvantaged. Greater efforts will be required with regard to women and the handicapped.

3. Vocational professional development programs will become interdisciplinary in the immediate future. Since the passage of the Vocational Education Act of 1963, vocational educators have become interested in developing an interdisciplinary approach to the problems of vocational education, as well as the programs of vocational education. A number of seminars featured experts from other disciplines within the school in an attempt to make vocational education programs more effective. It is true that vocational education programs did profit considerably from this effort. However, it has not been as effective as was originally hoped, and the recent trend has been away from using experts from other fields to any marked extent. One of the problems in using experts from other disciplines was the fact that vocational educators tend to ask individuals from other disciplines the wrong questions. For instance, we would ask an economist, "What should we in vocational education do?" His answer, sometimes more indirect than this, was "Vocational education is your field. I have solutions to the problems of economics. You will have to find solutions to the problems in vocational education. If you wish me to tell you what economics is about, I can do that."

If we are to use experts from other disciplines, and we must use them, we should begin by saying, "Here is what we see to be the purpose of vocational education. Here are the problems that we have been able to delineate. How can your discipline, in this case, economics, help us resolve these problems? On the other hand, do you see additional problems that we have overlooked? Do you see additional purposes that we might serve?" In all likelihood the economist could have directed attention to a series of questions along this line.

Probably one of the most effective means of developing a truly interdisciplinary program would be through the use of a broad-based advisory committee to make recommendations for professional development programs and activities. Such a committee would draw personnel from the social foundations of education, the psychological

foundations of education, researchers, the university administration, the communications department, the media specialists, and others in the university who have direct or indirect implications for vocational professional development. Additionally, individuals should be drawn from outside of the university as directors of vocational education, teachers of vocational education, business, industry, state department of education, welfare, recreation, health officials, and many others who have direct or indirect implications for vocational education. Such a group would provide a forum by which professional development programs and activities would be subjected to constructive criticism, and a series of recommendations would result that would aid in a better understanding of the problems that professional development in vocational education faces in the preparation of personnel.

No mention of the major components of vocational and technical development programs has been made. They are, of course, liberal studies, specialized studies, and professional studies. Dr. Wardeberg and Dr. Ator dealt adequately with these topics. It is important to note, however, that representatives of the major bodies of knowledge within the categories are members of the advisory committee. Through this level of involvement, they will develop a better understanding of the purposes, procedures, and problems of vocational and technical education. Additionally, the interaction that takes place in committee meetings and through improved knowledge, will not only enable them to make recommendations for the improvement of the specialized professional components, but they will also draw implications for their own courses.

4. Vocational professional development programs will establish or expand a service function to provide more adequately for this responsibility. Although the three major purposes of the university have historically been and remain that of teaching, research, and service, much more attention has been devoted to teaching and research than has been provided in the area of services needed in the schools. Elementary and secondary schools as well as community colleges and manpower programs continue to wrestle with the problem of curriculum development designed to make vocational education more meaningful. Few school systems could be expected to have the financial and human resources required to develop the type of curriculum needed today.

Although program learning and teaching machines had their birth in vocational education programs, they are not utilized in this area to the extent that they are in other areas of the curriculum. Most of the vocational teachers think of individualized instruction as a one-to-one relationship between student and teacher. The technology that has been in part created by vocational education teachers is not utilized adequately by them. Colleges and universities must assume a major role in seeing to it that curriculum development and instructional strategies are

improved in elementary and secondary education as well as in community college and manpower programs. Probably the first step to take in this effort would be that of using recognized curriculum procedures to modernize professional development programs.

The concept of continuing education has been generally accepted throughout the field of education and in other walks of life. We prepare for entry occupations and continue to develop the individual as he progresses up the occupational ladder. Vocational and technical education in general, and trade and industrial education in particular, have long relied on continuing education although we have not called it that. Many teachers of vocational and technical education are brought into the profession directly from the field, and through in-service education programs are provided with the necessary professional education and general education to enable them to become bonafide members of the profession. Through systematic program offerings strategically located throughout a defined geographical area, problems related to the preparation of vocational and technical education teachers can be reduced. Careful study should be made that will result in the establishment of sufficient centers to enable vocational and technical teachers and other professional personnel to receive formal training and other aids that will benefit them. Providing this kind of service to the field is the "life blood" of vocational technical professional development.

5. Vocational professional development personnel will assist the schools and colleges in developing facilities needed to carry out current concepts in vocational and technical education. Only a few fundamental changes have been made in vocational education facilities since its inception. Of course, equipment is more modern as is the material out of which buildings are made. An occasional new facility has been added as those required to conduct refrigeration and air conditioning courses as well as computer instruction. One of the most significant changes has been the addition of an instructional materials center usually located near the library. However, vocational and technical education teachers rarely use two-way intercommunication systems for instructional purposes as well as overhead projectors, film projectors, single concept loops, programmed instruction, and a host of other devices that are becoming commonplace in the school. Certainly these devices would be of considerable assistance in enabling vocational education programs to more adequately provide for the full range of ability referred to earlier. Once again, if teachers at the lower level expected to take full advantage of the technology available in education, professional development programs will have to utilize more of these materials in their programs. A wide variety of instructional technology should be applied in vocational and technical professional development programs without delay.

Another factor that should be considered is the development of facilities that allow for differentiated staffing. Differentiated staffing looms large as a potential for resolving a number of the problems in vocational education. Using mechanics who are highly specialized in a narrow area of an occupation, using individuals indigenous to the community to assist with disadvantaged and handicapped youth, and enabling effective teachers to reach more students through support staff are a few cases in point. Factors such as these should be considered in the development of facilities in the future to a much greater extent than they have in the past.

6. The research effort in vocational education must become more responsive to the programmatic and service needs of the field. Although some research has been carried out in occupational education since its inception, a major thrust in occupational education research was initiated with the passage of the Vocational Education Act of 1963. At that time, only a handful of institutions urged their graduates to become interested in positions in research in vocational-technical education. The great majority of the research was the direct result of peer pressure in universities and colleges in that order. The Vocational Education Act of 1963 made specific provisions for, and urged occupational educators to become interested in, research. Although considerable progress has been made in this area by this time, much is left to be desired. There are many attitudes and beliefs that educators hold that should be subjected to rigorous research. The university faculty should engage in research that is particularly needed to improve programs and services in the field.

A number of research projects could be outlined that would settle questions under debate for a number of years. The amount of occupational experience needed to perform effectively as a teacher, the number of students that can be effectively taught by a single teacher, implementing differentiated staffing, and providing occupational education for the poor are among them. Because of the intensive work required to implement the programs described earlier, and to develop the service in which a comprehensive department should be involved, the recommended course of action at this time is to allow research topics on which a department will focus to be an outgrowth of departmental effort. This will enable the research effort of a department to complement the teaching and service function more adequately. No attempt is made here to discredit some of the basic research that has been conducted and some of the basic research that must continue to be conducted. An attempt has been made to make a case for a better balance between research that is not geared to particular problems that are playing in the field at this time, as those that are.

7. If vocational professional development programs and personnel are to discharge the responsibilities outlined above, the

funding level of these activities must be made comparable to the total funding effort in vocational and technical education. In the great majority of cases, vocational professional development programs have been expected to keep pace with changes in the secondary schools and in the community colleges. It is probably true that vocational professional development programs and activities can be improved considerably without additional funding. However, the retooling required to update programs to enable them to serve as a model for other vocational programs, as well as the mammoth service activities and research efforts required, are unlikely to improve their effectiveness without substantial increases in financial resources.

The view has been expressed that vocational and technical professional development personnel must assume the leadership that will result in all vocational and technical education programs discharging the responsibilities they have assumed. The full discharge of this responsibility will enable vocational and technical professional development programs to make an indelible impression on the educational community.

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Possible Changes in Teacher Preparation Programs

By Helen L. Wardeberg*

Most undergraduate programs have three components: (1) general education, or the core that most students take to be "generally" educated, (2) the "major" or subject matter component, and (3) the education component, or content that prepares for teaching.

What changes do you see in these three components in order to implement the career education concept in the undergraduate programs?

Predicting the future is at best risky business. What one could laugh at yesterday as being impossible, tomorrow comes true. Some changes appear inevitable and beyond any individual's control; others can be implemented or guided, it is hoped with good judgment and professional insight.

I do not assume, as many do, that schools and teacher preparation need radical reform. Public schools as we know them today may very well not survive. In the historical perspective, our schools and teacher education change steadily. They will continue to change to meet social, political, and economic needs as well as human desires and aspirations. The career education concept is intended to cause our educational institutions to change. My own career encompasses substantial change in teacher education.

In retrospect, the normal school system for the preparation of teachers was a great movement. It made teaching a career and made preparation for teaching a professional matter. In terms of the three components of the undergraduate program under discussion, these programs were "light" on general education and subject matter specialization but "heavy" on professional and career orientation. Much of the additional time required to meet teacher preparation criteria today, particularly for the elementary teacher and for the occupational teacher, is used to develop aspects presumed necessary to be an "educated" person. Today we accept the ideal that the teacher must first of all be well- and liberally educated.

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Career education, among other things according to Joseph Cosand, is an attempt to "redirect the educational process to the fulfillment of the whole man--in his work, in his community, in his personal life . . . it is toward the incredible waste of human potential that the concept of career education is primarily directed. But it is also addressed to the whole continuum of education on the premise that learning is a lifelong proposition. . . ." Implementing the career education concept in the undergraduate programs will involve some inevitable changes as we attempt "fulfillment of the whole man."

Colleges and universities in this country differ widely in the ways by which they try to ensure that their students are "well- and liberally educated." Programs range from those in which students have almost no choice because majors, distribution, sequence, and breadth are rigidly prescribed, to programs in which students have almost complete election of courses. Through the 1950's and 1960's, prescription tended to be high; even electives were often by "advisement" within narrowly prescribed limits. Professional preparation, not only in teaching, was increasingly post-baccalaureate. Practical arts and technical skills either disappeared or became so esoteric that any semblance to the world of work was quite incidental (e.g., engineers studied high-level mathematics and theoretical physics).

Hartnett observes that "the pathway to obtaining a college degree (is) the traditionally accepted four years of credit accumulation pursued by young people between the ages of seventeen and twenty-three who devote essentially full time to formal classroom study." The career education concept is in many ways in direct contrast to this "traditional" concept. Changes will be toward greater variability among students and program in "nontraditional" ways.

The concept of career education implies easy exit and easy access to differing types of educational institutions and programs. It is estimated that by 1975 about one-half of those enrolled in universities will have begun their education in a two-year program. If this happens, the sequences we could insist on, the prerequisites we could assume, the homogeneity of the class we thought we wanted, will cease to exist. Universities without walls, New York's Empire State College without classrooms, and similar models will not only make college possible for many who have not had a chance, but surely will increase the variance in the "commonness" of background. Based on the premise that learning is a lifetime proposition, there will be less effort to assure mastery at the undergraduate level, perhaps more effort to "open up" lifelong interests and areas of knowledge.

Career education infers that experience in the world of work is a legitimate part of being an educated person. It also infers

a work/study/work pattern. We will have to find ways to evaluate work and experience in academic terms. Those completing general education or the core will be much less homogeneous than they are now, probably older, probably more knowledgeable about themselves and what they know.

If we are to "redirect the educational process to the fulfillment of the whole man," we will need to add to most undergraduate programs a "humanistic" component. We have not traditionally assessed, or taught, the skills to help teachers and others in personal-social ways, understanding of self and others, what is now termed humanistic or affective psychology. Among youth today, worldwide, this area has considerable appeal. To be sure, such concern is not limited to teacher preparation programs, nor to today's youth. Ways must be found to legitimize and assess this concern for rights of others, compassion, involvement, fulfillment, and more complete utilization of the human potential, and to encourage such qualities in those who will teach our children. Schools today are not perceived as warm, friendly places where love of learning as well as love of one's fellowman is accepted.

We have some sophisticated and rigorous means of assessing the competency of persons in the areas of general liberal education, but the personal assessment, judging who is well-educated, is more than a matter of counting the number of credits earned in the various distribution classifications.

With regard to the teaching component, the concept of career education requires a new, or at least different, kind of competence that cannot be adequately assessed by counting credit hours to make up a "major." The good teacher is interested in everything--and needs to be. Yet, we build teacher preparation on the concept of the academic major--narrow specialization often with little regard for how this specialization relates to the classroom, or to the world at large.

The career education concept requires familiarity with the world of work and, specifically, some knowledge of the utilization of the academic discipline in the world of work Teacher educators in occupational and technical education will find this less of a change than traditional academic areas. New certification requirements for teachers of occupational subjects in New York State require work experience. By way of implementation, "The Department will ask the institutions of higher education for evidence that a careful assessment of the occupational experience has been undertaken so that assurance can be given that only appropriate occupational experience will be accepted." To implement this kind of experience and "careful assessment" will demand considerable change in current practice for many institutions preparing teachers. We at Cornell are working on it right now.

The career education concept suggests that responsibility for assessment will be shared by the student who, in fact, may be more rigorous and critical of himself than our prescriptions might be. He will have strong motivation for improving his own qualifications. The career education concept implies that the student is aware of his competencies and abilities, can assess himself as well as the demands of a job, and thus is actively involved in planning for his own needs. To implement this concept, we will have to find mechanisms and ways that will foster and incorporate this involvement.

Two changes as a result of implementing career education in this preprofessional component of the undergraduate program seem likely:

With greater career awareness, and with more options not only available but identified, those who want "insurance," who don't know how to do anything else, who want to "do-good" will be less inclined to seek a career in teaching. Or, only those with a commitment to teaching and with a realistic desire to do so will be involved.

Those entering any aspect of teacher preparation in elementary and secondary academic as well as occupational areas will have had some work experience--perhaps in some aspect of the education process but not necessarily. They will have an acceptance and understanding of the world of work, a sense of reality, a kind of pragmatism combined with idealism that should be very positive. In turn, these teachers should have better capability to deal with concepts of career education, making the world of work real to pupils, helping them assess themselves in terms of the real world, in relation to curriculum, to work, and to a good life.

I turn now to changes in the education component in order to implement career education concepts. Methods *per se*, supervised practice *per se*, or any other part of the professional component *per se* do not show any consistent and predictable result so far as teaching success is concerned. Cyphert, after an extensive review of research in teacher education, concluded that research has had little impact on the education of teachers--or for that matter, upon preparation curricula in any professional field. The Distinguished Achievement Awards program of the AACTE presents exemplary programs illustrating different combinations of practice, field work, and methodology. The comprehensive models for preparing elementary teachers contain little that is new but illustrate widely varying degrees of emphasis, innovative organizational patterns, and different management devices.

In other words, we have a long tradition of teacher preparation but little evidence that training teachers in any specific

pattern or model is significantly better than any other. Preparation for a profession is clearly a complex matter; we probably don't even ask the right questions. In one sense, this lack of clear evidence is discouraging and depressing. In another sense, however, we can afford to try different ways of doing things and explore changes to implement concepts of career education.

Cyphert identified three crucial questions: (1) What are the behavioral skills a teacher must possess in order to be effective? (2) What are the characteristics a prospective teacher must possess before he can acquire these skills? (3) What are the training experiences that will help him to acquire the skills most efficiently?

Most of us in teacher preparation know some, if not all, behavioral skills a teacher needs. Research has identified some of those behavioral skills, e.g., the language teachers use, interaction models, questioning techniques, group management, assessment, and planning. If we agree that learning to be a professional takes time--including practice, repetition, tedium, criticism, analysis, effort, and so on--then even though we may not know a perfect and complete model of teaching, we can help the beginning teacher build a repertoire of teaching skills. These need not necessarily be the same for all, but can be presented as a series of alternatives.

Teachers prepared at the undergraduate level must have enough flexibility in their repertoire and enough awareness of their own skills and competence to know when they need new approaches and where to find help to get them. The student sees himself developing competencies, sees a pattern to the skills development for his own particular teaching style.

In the undergraduate component, only a start will be made--but it is an important basic repertoire. Some of it can be done by simulation, in mini-lessons and micro-teaching, by observation, by acting out. But it should also be an individual set of behaviors that must be internalized and habituated into an individual and personal teaching style. I doubt that it can be mass-produced.

The activity we call student teaching continues to be popular and exciting for the undergraduate. Yet what many colleges are doing is expensive, inefficient, random, time-consuming. Change is inevitable. Campus schools are being closed, budgets are being cut, staffs are being reduced. Professional organizations are demanding accountability.

Changes will take several directions. Performance-based programs are receiving attention. Simulation, television monitoring, and similar technological devices are suggested. Teaching centers are recommended.

Implementing career education concepts suggests several other alternatives. We can explore ways of utilizing experience in non-school settings. Teaching in the Peace Corps, VISTA, military service, private schools, even museums and industry, for example, can be evaluated and substituted for some of our conventional public-school student teaching requirements. We have not been very innovative in assessing these kinds of experiences.

The career education model suggests that people will by the time they reach the end of their undergraduate program often have had rather substantial experience in the world of work. Some of this will have been as teacher aides, tutors, learning center specialists, and so on. We will need to explore ways of assessing equivalency, to assure a measure of competence without unduly restricting parameters of experience.

Teaching is probably more comparable to the performing arts than to the factory production line so often implied in the accountability routine. Of those who prepare at the undergraduate level, only a few will become "master" or career teachers. The undergraduate component serves as a screening device, a period during which students in their exploration of career choices find that teaching is or is not for them. Some will find that teaching individuals and small groups is for them, but not large group management.

For those who discover that teaching is to be their career, for they simply have it "in their blood," the undergraduate component will be merely the beginning of a lifelong continuing education process. One significant change at the undergraduate level linked to the concept of career education is the idea that this is exploratory--that one's life career is not frozen at this point, that one need not "cram in" all the expertise that will last forever. Career education concepts, if implemented, will give many the opportunity to try out and assess themselves as teachers. That idea will require change in the kinds of experiences, the manner in which we as teacher educators deal with this component.

It has been a year now since the newspapers and magazines reported that the "Unwelcome Mat" was out, as the *Wall Street Journal* termed it, that colleges were starting to discourage would-be teachers, tighten requirements, revamp the curriculum and cut financial aid. It was time, they said, to turn off the faucets, for some thirty-seven percent of all college graduates were certified to teach, and there was no longer a demand for them. A teacher surplus, even if temporary, gives us a chance to develop other than mass production components of teacher preparation program. Set in the context of the career education movement we can look forward to change in what most of us have been doing.

We can be more selective. They will be more demanding, for they will know what they want and need. We--the professional educators, those who prepare teachers--will increasingly have to depend on our own judgment and expertise. Test scores, letter grades, clock hours, credits, units of "competency," won't do. Assessment of the humane, the personal, the individual will be, even more than it always has been, basic to the preparation of teachers.

The changes I have suggested are not very dramatic. They do not require grants or large amounts of money; they do not require expensive technical equipment; they don't even produce fancy acronyms. Some of the changes will remind you of an earlier day and a different context, for I think it likely that almost everything one can think of by way of training teachers has been tried in one way or another at one time or another.

Programs will be small, individual, tailor-made, with emphasis on students and their career development. Of course, restrictions will continue to be with us--certification requirements and institutional regulations will change only slowly and after the fact. But teachers and professors--and above all students--are remarkably skillful in circumventing any administrative edict or constraint if they really believe and want to do something.

Career education in its best sense challenges us to reallocate resources, if needed, but most of all to build on the resources of those who choose to enter teaching, to trust our own judgment of those who should work with the young, to preserve our equanimity, to be models ourselves of the premise that learning is a lifelong proposition.

ɔu ... ussion Summary

Three questions directed the discussion in the twelve groups. A summary of the highlights for the three questions follows.

Question 1. In addition to the changes suggested in the formal presentations, what additional changes will occur in professional roles as a result of career education?

A. A closer relationship must be established with all teachers.
B. Educators must become catalysts for change rather than defenders of the status quo.
C. Educators need to become more knowledgeable about career development.
D. More opportunities for differentiated staffing will emerge.
E. Educators need to become aware of resources available for career education.
F. More in-service education is needed.
G. Educators will need to include a work experience component in their own total education.
H. Humanistic attitudes need to be developed and cultivated.
I. Awareness of career education efforts needs to be expanded.
J. Emphasis should be placed on the self-actualization process as it relates to career development.
K. Accreditation and certification requirements will need additional attention.
L. Leadership responsibilities need to be established for all roles in career education, not just in vocational education.
M. Massive curriculum efforts are needed to reflect career education concepts.
N. Educational attitudes toward work need to be improved.
O. Roles need to be defined.
P. Emphasis should be placed on the role of the student in the learning process.
Q. Greater flexibility will be needed.
R. More emphasis placed on accountability.
S. Career education needs to be defined.
T. Educators need to assume increased responsibilities for guidance functions.

Question 2. How can vocational and academic teacher educators become effectively involved in a team effort for career education?

A. Subtle leadership techniques in promoting career educat on will be more effective than outright declaration of leadership.
B. Develop an acceptable definition for career education.
C. Identify strengths of professional personnel and capitalize on these strengths.
D. Career education should not be just a new name for vocational education.
E. New reward systems for educators need to be established.
F. Schools need to increase community involvement in planning all curricula.
G. Establish career education task forces with representatives from all subject matter areas.
H. Emphasize more open concepts in buildings and teaching situations.
I. Involve administration at all levels of education.
J. All teachers need to become more aware of career development concepts.
K. De-emphasize the terms "academic" and "vocational" in speaking of these teachers.
L. Retrain teachers in "excess" areas for roles in career education.
M. Acquaint all educators with the *Dictionary of Occupational Titles*.
N. Develop team teaching techniques.
O. Vocational educators need to admit they do not have all the answers.
P. Involve student groups in planning and implementing career education.
Q. Stress mutual respect for unique contributions from all areas of education.

Question 3. What implications do the ideas presented in the formal presentations yesterday and in our discussion groups today have for present teacher education programs?

A. Increased emphasis on developing the aspirations of people.
B. More emphasis is needed on community involvement.
C. Identify the services to be delivered.
D. Improved methods need to be developed to evaluate the results of teacher education.
E. Greater flexibility needs to be established.
F. Increased emphasis on attitudes toward work.

G. Increased emphasis on career development theories.
H. Team teaching with representatives of different departments involved.
I. Working relationships need to be established with community colleges and other educational agencies.
J. Educators should become actively involved in certification and accreditation activities. Educators must have the commitment of persons at all levels of education.
K. Examine the diffusion models for information on how information is disseminated.
M. Utilize career education materials for developing awareness about career education.
N. Courses need to reflect current developments in career education.
O. In-service career education activities should be developed for teacher educators.

chapter IV

Keynote Address

Rewards of a Successful Career Education Program

By Joel Smith*

Those engaged in vocational education have at some time or another been considered a stopgap measure. They were fostered by, and indeed grew out of, a pressing need to fill a void in the educational lives of more than half the children in the public schools in the state of Georgia. This, I think, is a necessary and enthusiastic endeavor and one that has been admirably undertaken, especially since the Vocational Education Act of 1963. Unfortunately, the lack of a program of total education provides little experience and exploration for the student in his early educational years, provides a less than clear guidance continuum, and creates within the student uncertainty and a feeling of apathy on the one hand or a feeling of urgency on the other. Certainly we in vocational education will be relieved of a tremendous handicap when our students come to us with occupational goals in mind that have grown out of occupational information, orientation, and exploration coupled with a realistic guidance program throughout their earlier educational experience. This is possible only through a program of continuing career development, sequential in nature and built around a career development theme that includes: (1) the student's evaluation of self-characteristics; (2) exploration of broad occupational areas; (3) introduction to the economic and social values of work; (4) introduction to psychological and sociological meanings of work; (5) explanation of educational avenues; and (6) the student's process of decision-making based upon the foregoing items.

Specifically, the Cobb County Occupational and Career Development Program has five major product goals and accompanying objectives. They are:

1. The student will develop an awareness of self-characteristics (interests, values, abilities, personality traits). He will accomplish this: (A) at the elementary level, by recognition of activities that he most likes, that he performs best, and that give him the greatest satisfaction; (B) at the middle school level, by differentiating his own self-characteristics from those of others and by

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by identifying broad occupational areas that may be more appropriate for him; and (C) at the secondary level, by preparing himself for entry-level jobs or by exploring particular occupations in greater depth through reality testing in concrete and simulated experiences and by consistently checking his perception of self with his perception of the actual experience and by making appropriate modifications.

2. The student will acquire an awareness of the occupational choices within the community and the characteristics and the contribution of each and will extrapolate to build a frame of reference for occupational opportunities in the state, nation, and world. He will accomplish this: (A) at the elementary level, by identifying most observable occupations in the community, by identifying persons in various occupations, by differentiating among occupational skills used, by differentiating individuals by identifying prerequisite skills needed to enter their occupations, and by identifying the contributions each make to our community; and (B) at the middle school level, by differentiating among the several broad occupational areas in terms of the nature of work tasks performed, the future impact that technology might have on particular occupational areas, the future demand on the broad occupational areas, and the contributions and importance of particular occupational areas to our society. At the secondary level, the student can differentiate among the major occupations that make up a broad occupational area and can make some differentiation of these occupations in terms of: (1) the amount and type of education needed for entrance and the content, tools, setting, and products or services of these occupations; (2) their value to society; (3) their ability to provide him with the type of life style he desires; (4) the extent to which they can satisfy his interests and values; and (5) the ways in which they seem appropriate or inappropriate to him.

3. The student will acquire an awareness of educational avenues necessary and those available relative to a wide range of occupational areas. He will accomplish this: (A) at the elementary level, by demonstrating how certain knowledge and skills acquired in different school subjects are applied in different work roles; and (B) at the middle school level, by identifying the different educational areas that are available both in the distant and immediate futures, and the nature and purpose of each, and by tentatively assessing the value of each to himself in terms of his possible occupational choices. He is able to demonstrate how knowledge and skills acquired in different subject matter areas relate to the performance of different

work roles. At the secondary level, the student differentiates among the different types of post-secondary avenues available in terms of accessability, life style, potential costs, and career objectives.

4. The student will build an ability for decision-making upon his awareness of self-characteristics, occupational areas, educational avenues, and activity-oriented experiences. He will accomplish this: (A) at the elementary level, by differentiating those self characteristics and environmental factors that can have impact upon his future and by discussing ways of minimizing weakness and maximizing strengths; and (B) at the middle school level, by identifying future decisions he must make in order to reach given goals. He identifies those personal and environmental efforts that impinge on his future decisions. He assesses possible steps toward minimizing negative factors and maximizing positive factors and the possible consequence of each of those steps. At the secondary level, the student develops more specific plans for implementing his career purposes. He executes plans to qualify for entry-level jobs by taking appropriate courses at the high school level, by on-the-job training, or by pursuing further training in a college or post-secondary vocational-technical institutions leading toward qualifications for specific occupations.

5. The student will acquire an awareness of the psychological and sociological meaning of work and during his school activities will express a positive attitude toward self, others, educational programs, and different types of work roles. At the elementary level, the student realizes the importance of team work in different work settings and of cooperation with others in order to reach a common goal and can express the importance of his contributions and that of others in reaching a common goal. At the middle school level, he sees work as a means of adding meaning to lives of most people and as a means of gaining many social rewards. He recognizes the personal and social significance that work has in the lives of individuals at varying levels within the occupational structure. At the secondary level, the student becomes involved in a meaningful and purposeful manner of work and work-related activities in a broad occupational area but at a particular level.

Analysis of the above goals led to the development of six elements (components) now incorporated into all units implemented at all grade levels in Cobb County. These elements are: (1) hands-on activities, (2) role playing, (3) field trips into the community, (4) resource people into the classroom, (5) subject matter tie-ins,

and (6) introduction to occupations in the community that are relevant to the ongoing unit. A unit approach was chosen as a structural framework for implementing the career development approach. The concurrent and overlapping nature of these elements encourages individual creativity and permits flexibility within any given unit.

Staff curriculum writers, drawing upon teacher/student interests, ideas, and needs and appropriate grade level concepts, develop units on a predetermined format. Teachers then implement such units and offer suggestions for further development or refinement. The instructional staff curriculum supervisors, representative teachers, and curriculum writers working as a team are incorporating career development units into the overall Cobb County curriculum guide at appropriate points. This effort to present career development units as an integral part of the ongoing curriculum will be instrumental in the implementation of the career development approach system-wide.

The career development approach serves to: (1) give the student learning-by-doing (concrete by abstract) experiences, (2) point out the relationship and interdependence of the academic disciplines to one another and to various work roles in the community, and (3) give the teacher a vehicle by which she can present the existing curriculum as opposed to adding on additional subject matter. At the elementary and middle school levels, there is neither intent nor desire to channel students into any occupational decision; rather, the goal is to build a base of experience and exposure upon which the student can most effectively make decisions relating to his next step in the life-education continuum.

Career development specialists work with grade level teachers in selecting activity-centered projects, in planning implementation, in procuring materials and supplies, in arranging field trips, and in bringing resource persons into the classroom. The function of the career development specialist is thus one of support to the implementing teacher. She, in turn, presents her existing curriculum using the career development approach.

At the middle school level, the unit approach is more directly related to simulated work experience. Subject matter tie-ins increase as does emphasis on characteristic manipulations and self-awareness as applied to exploratory work situations. Teaching teams for grade 7 consisting of math, science, language arts, and social studies implement interlocking units with each teacher relating her respective subject concepts and skills to the unit activities and drawing upon prevocational specializations that are applicable during the course of the unit.

To give increased emphasis to the exploratory nature of the career development approach, a Program of Educational and Career

Exploration (P.E.C.E.) is incorporated at the eighth grade level at J. J. Daniell Middle School. The P.E.C.E. Program, initiated by the state of Georgia, is in its third year in Cobb County. A coordinator accompanies students into the business community to observe workers on the job at all levels including semiskilled, skilled, semiprofessional, and professional occupations. Students have the opportunity to observe work settings and job characteristics and to interview workers about their feelings related to their respective occupations. A flexible schedule is utilized for this program so that ample time is given for such on-site activities. In classroom sessions following field trips to on-the-job sites, students in the P.E.C.E. discuss the various jobs they have observed including such things as skills required, educational requirements, work settings, fringe benefits, work hours and job characteristics relative to self-characteristics.

The first decision-making point in the career development approach occurs in grade nine. Students choose one of three broad occupational areas for in-depth exploration basing their choices on previous experience, exposure, and exploration through career development. These broad occupational areas are: (1) human services occupations, (2) the industrial arts occupations utilizing construction and production as a theme, and (3) business and distribution occupations. All teachers of grade nine meet periodically for planning and identifying specific ways that English, science, mathematics, and social studies can be related to given activities in each of the aforementioned broad occupational areas. A significant part of the career development program in the middle school is the continued community involvement through taking field trips into the community and bringing resource people into the classroom.

At the secondary level, students in grade 10 at Sprayberry High School may choose a class in career exploration, a class in general business, or those classes more specifically relevant to occupational goals in the professions, etc. The student choosing the career exploration class rotates through the six occupational areas of training offered by the Vocational Department at Sprayberry High School. There he is introduced to each of those occupations and, subsequently, to similar occupations and to the characteristics, skills, and educational steps pertinent to still a wider range of occupations at varying levels.

The student choosing the general business class is introduced to typing, bookkeeping, office practices, and other such activities and, as in the career exploration program, the relativeness of mathematics, English, science, and social studies but, in this case, to business occupations.

Those students purusing occupational goals in the professions are choosing courses that facilitate preparation for attaining

these goals. All students are exposed to the unit approach through their language arts, science, math, and social studies classes. As in the middle school, subject area concepts and skills are presented in such a way that they can be applied to individual career choices. This unit approach is continued through grades 11 and 12.

For those students identified as potential dropouts there is a program of Cooperative Vocational and Academic Education (C.V.A.E.) in addition to those activities previously mentioned. A C.V.A.E. coordinator meets one hour per day with such students to further strengthen the relationship of the various subject matters to each other, to the world of work, and to actual job situations in which these students are engaged. The coordinator works as a liaison between the community and the school in helping the students to obtain after-school employment and to relate that employment to their schooling. In grade 11, based upon information and exploration as mentioned above, the student may choose to enroll in the Vocational Department of Sprayberry High for job-entry level preparation in drafting, electrical construction and maintenance, graphic arts, radio and television repair, or sheet metal and welding or he may choose any one of a number of cooperative programs such as Diversified Cooperative Training (D.C.T.), Vocational Office Training (V.O.T.), or Distributive Education (D.E.). Or he may continue to choose those classes necessary to pursue an occupational goal in the professions.

In grade 12, the student may continue any one of those opportunities listed at the eleventh grade level and, in addition, may choose the Senior Plan in which he attends the Marietta-Cobb Area Vocational Technical School for specific occupational preparation while graduating with his high school class.

At the secondary level, the emphasis is one of preparation for the next step through more specific occupational-skill preparation.

The guidance function is vital at all grade levels in the Cobb County Occupational and Career Development Program, with special emphasis at the secondary level to provide every student with information about occupational choices as well as educational avenues. Culminating the guidance function at the secondary level is a placement program drawing upon a placement coordinator, Manpower agencies, guidance counselors, business personnel departments, and other community resources in helping each student exiting the school in making his next step at whatever time he chooses to leave and for whatever reason.

A similar career development approach to education is underway to some degree in every state in the Union, largely through the efforts of the U.S. Office of Education. Career education is growing in prominence in local systems and indeed has become a top

priority item nationally under Commissioner Marland. What does this mean to the vocational educator and to those who educate vocational educators?

It means that future students will make career decisions and choose educational avenues based on their experience, exposure, and knowledge. It means that youngsters will choose programs to fit their needs rather than try to fit themselves into "our" programs. It means that they will be more aware of the real occupational opportunities available to them before they choose educational avenues.

It means that youngsters progressing through a career development program will demand educational offerings that are commensurate with their career goals. It means that vocational education, as a part of the broader scope of career education, will serve a greater number of students who are prepared to take advantage of meaningful vocational programs--if vocational educators are prepared to function in this broader environment.

As in any sound educational program, there must be determined the desired student outcomes, the inputs by teachers to achieve these outcomes, and the training of teachers to facilitate such inputs. Does this mean a new department for career education within the teacher training institutions? Emphatically not! It means practicing what we preach! If teachers are expected to be facilitators rather than the fountain of knowledge, then should their training not be under a facilitator? If they are expected to incorporate a variety of teaching methods to stimulate interest and eliminate the separativeness of "learning" and "doing," then should their training not be so presented? If they are expected to utilize community resource persons within the classroom and to utilize community businesses and industries for observation, exploration, and preparation, should their training not utilize the community even at the post-secondary level? If teachers are to be aware of emphasis shifts in a sequential educational program and their inputs at the respective levels, should their training not be of such a sequential nature? If they are to present instruction that is appropriate to the needs of individuals rather than to programs or schedules, then should not their instruction be so presented?

The national thrust on career education has implication for all students (K-Adult), for their teachers and for their teachers' teachers.

appendices

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NATIONAL VOCATIONAL TECHNICAL TEACHER EDUCATION SEMINAR

IMPLICATIONS OF CAREER EDUCATION FO

October 23-26, 1972
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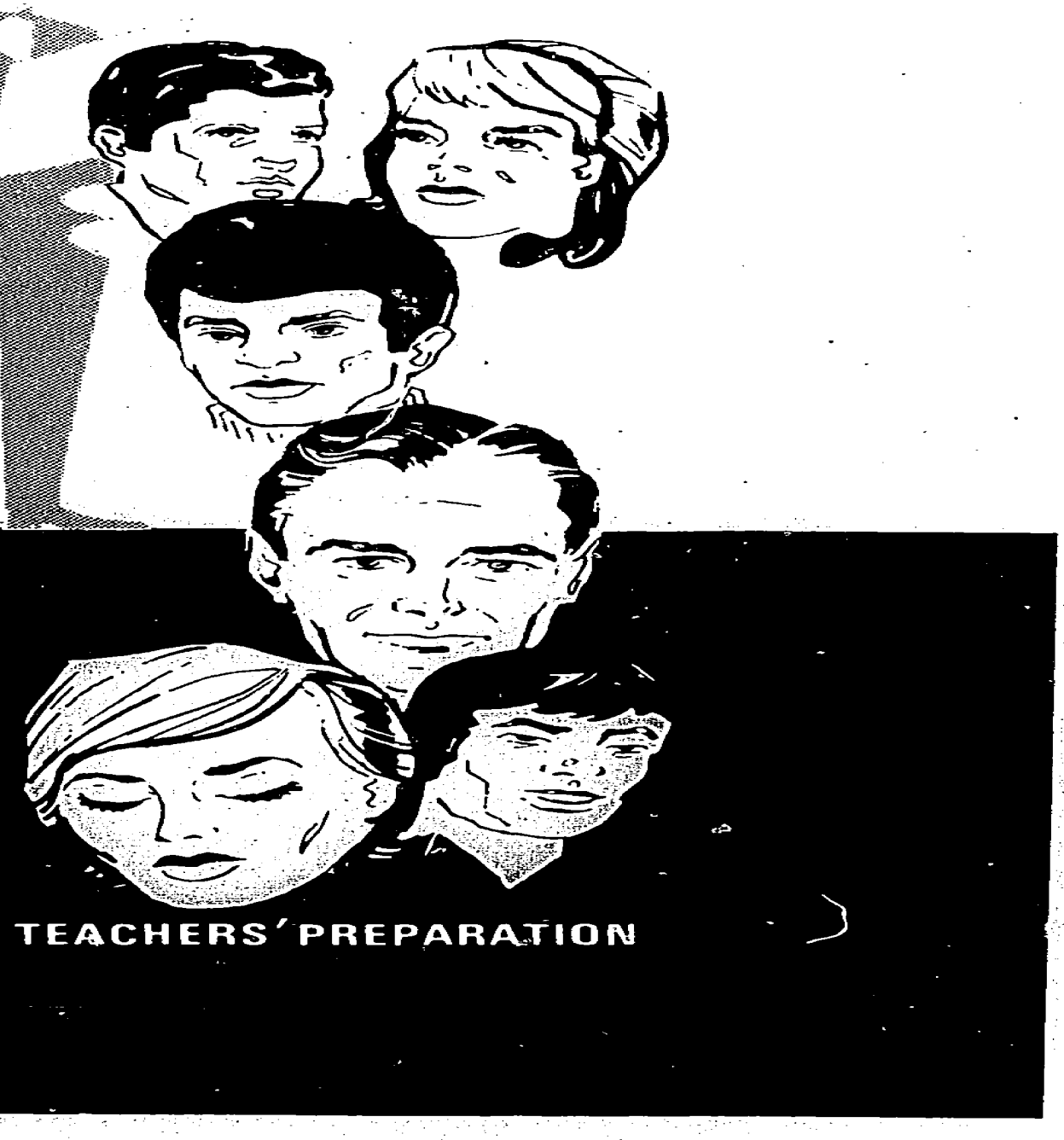

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MONDAY, OCTOBER 23

1:00 - 5:00 p.m. **REGISTRATION** — Lobby, Pick-Fort Hayes Hotel

7:00 - 8:00 p.m. **REGISTRATION** — Lobby

7:30 p.m. **OPENING SESSION** — Hitchcock Hall, The Ohio State University

PRESIDING
Anna M. Gorman

WELCOME
Robert E. Taylor

GREETINGS
Robert Worthington

INTRODUCTION
Robert E. Taylor

KEYNOTE ADDRESS
Rupert N. Evans

PRESENTATION OF AWARDS
Darrell L. Ward

TOUR
The Center for Vocational and Technical Education

TUESDAY, OCTOBER 24

8:00 a.m. - 5:00 p.m. REGISTRATION — Lobby

9:00 a.m. FIRST SESSION — Regency Ballroom

PRESIDING
Willard M. Bateson

ORGANIZATION OF THE SEMINAR
Anna M. Gorman

CONTEXT OF CAREER EDUCATION
Keith Goldhammer

10:00 a.m. COFFEE BREAK — Lounge and Emerald Room

Doug Pine, host
Anne Hayes, hostess

10:30 a.m. ORIENTATION TO CAREER EDUCATION: THE TENETS — Regency Ballroom

A. J. Miller
Louis Maguire

11:45 a.m. - 1:30 p.m. LUNCH

TUESDAY, OCTOBER 24

1:30 p.m. SECOND SESSION — Regency Ballroom

PRESIDING
Vera P. Tisdale

REACTOR PANEL TO TENETS
Charles Buzzell
Patricia S. Kelly
William Stamps

2:45 p.m. COFFEE BREAK — Lounge and Emerald Room

Chester K. Hansen, host
Evelyn S. Barnes, hostess

3:15 p.m. PANEL: POTENTIAL CHANGES IN PROFESSIONAL ROLES — Regency Ballroom

Curtis Dixon
Orval L. Seaman
Duane Richins

8:00 p.m. FILMS AND SLIDES ON CAREER EDUCATION — Emerald Room

John Barton

WEDNESDAY, OCTOBER 25

8:30 a.m. - 5:00 p.m. REGISTRATION — Lobby

9:00 a.m. THIRD SESSION — Regency Ballroom

PRESIDING
Robert Koon

DISCUSSION SESSIONS

CHARGE TO GROUP
N. L. McCaslin

Group A:	*Margaret V. Barkley, leader*	*Rose Room*
Group B:	*Edward J. Coughlin, leader*	*Turquoise Room*
Group C:	*Carl E. Hurley, leader*	*Coral Room*
Group D:	*Adaline D. Jones, leader*	*Jade Room*
Group E:	*Frank E. Nelson, leader*	*Topaz Room*
Group F:	*Rosemary DeLoach, leader*	*Emerald Room, North*
Group G:	*Agnes Ridley, leader*	*Emerald Room, South*
Group H:	*John A. Rolloff, leader*	*Patio*
Group I:	*Theodore F. Rybka, leader*	*President's Suite*
Group J:	*Modestine Smith, leader*	*Regency Ballroom, North*
Group K:	*Elizabeth A. Monts, leader*	*Regency Ballroom, South*
Group L:	*Alan Kahler, leader*	*Albert Pick Suite*

10:30 a.m. COFFEE BREAK — Lounge and Emerald Room

Freeman Eads, host
Shirley Chase, hostess

11:00 a.m. HIGHLIGHTS OF DISCUSSION — Regency Ballroom

11:45 a.m. - 1:30 p.m. LUNCH

WEDNESDAY, OCTOBER 25

1:30 p.m. FOURTH SESSION — Regency Ballroom

PRESIDING
Edward Ferguson, Jr.

BASES FOR OCCUPATIONAL CATEGORIES
Eugene R. F. Flug

2:15 p.m. IMPACT OF CLUSTERING CONCEPTS ON CURRICULA FOR OCCUPATIONAL EXPLORATION AND SKILL DEVELOPMENT
Walter Adams
Leonard Kunzman

3:30 p.m. COFFEE BREAK — Lounge and Emerald Room

Randy Wells, host
Martha C. Muncrief, Hostess

4:00 p.m. CAREER EDUCATION AND PREPARATION PROGRAMS FOR TEACHERS — Regency Ballroom
Louise Keller
Harry N. Drier, Jr.

8:00 p.m. INFORMAL DISCUSSIONS ON CAREER EDUCATION, CCEM — Emerald Room

A. J. Miller	Earl Hall
Walter Adams	Fred Harrington
Harry N. Drier, Jr.	Lorella McKinney

THURSDAY, OCTOBER 26

9:00 a.m. **FIFTH SESSION** — Regency Ballroom

PRESIDING
Mary V. Marks

DIALOGUE: POSSIBLE CHANGES IN TEACHER PREPARATION PROGRAMS
Dallas G. Ator
Rudy Lockette
Helen L. Wardeberg

10:00 a.m. **COFFEE BREAK** — Lounge and Emerald Room

Dick Dieffenderfer, host
Mary Martin, hostess

10:30 a.m. **A CAREER EDUCATION PROGRAM: THE REWARDS** — Regency Room
Joel Smith

11:15 a.m. **WE SHARE WITH YOU**
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Appendix B

SIXTH ANNUAL NATIONAL
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SIXTH ANNUAL NATIONAL
VOCATIONAL-TEACHER EDUCATION SEMINAR

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