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ABSTRACT

Differences and similarities between career education and vocational education are explored in the following areas: Definition of terms; individuals served; phases of career education and their relation to vocational education; placement; education and certification of teachers and other personnel; teaching-learning strategies; and advisory councils and steering committees. General overall differences between career education and vocational education are outlined in the final section and include the following: Career education is for all students; vocational education is for students who wish to acquire skills for a particular job or job cluster. Career education spans early childhood and adulthood; vocational education usually begins no sooner than grade 10. Career education emphasizes unpaid and paid employment; vocational education emphasizes paid employment in jobs that require training at less than the baccalaureate degree. Career education concepts are integrated into the ongoing curriculum; vocational education curriculum has as its core substantive content in a trade area. Similar teaching-learning strategies employed by both career education and vocational education are also noted: To work with advisory councils and the business community, and to use guidance services, including placement; however, career education works with representatives from a wide spectrum of occupations and at all skill and professional levels, whereas vocational education works with people who represent the trade area being taught. (TA)

Career Education and Vocational Education

A Comparison

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INTRODUCTION

When Dr. Sidney P. Marland, Jr., introduced the concept of career education in 1971, many educators, both academic and vocational, seemed in agreement with it, at least in principle. In some states, departments of vocational education immediately included the words, career education, in the names of their departments; other states changed the names of their departments of vocational education to state departments of career education. Responses from outside the field of education were also favorable. Organized labor, the U.S. Chamber of Commerce,[1] the National Alliance of Businessmen, and other organizations in business and industry endorsed the concept.

This early interest in career education was prompted by two conditions: (1) Dr. Marland, then U.S. Commissioner of Education, made career education the watchword of his administration, and (2) discretionary monies were made available through Dr. Marland for implementing the concept. In the five years since the introduction of career education, however, much skepticism has developed. Academic educators from liberal arts institutions have maintained that career education is an extension of vocational education. On the other hand, vocational educators have deplored the fact that principal financing has come from vocational education monies with the emphasis on K-9 rather than on K-Adult. Minorities have expressed concern that career education is a means of tracking members of their groups into low-paying, dead-end jobs.

What, then, is career education? Is it a new name for vocational education? Is it a tracking system? Is career education synonymous with vocational education? The differences between career education and vocational education cannot be discussed without alluding to their similarities. In fact, the similarities may be the basic cause of the confusion about career education and vocational education and the way in which they relate to each other. For instance, both vocational education and career education are about work. Also, individuals often use the terms "career" and "vocation" interchangeably; hence their view that career education is synonymous with vocational education. Similar teaching-learning strategies are used in both (here career education will have to confess to borrowing from vocational education) which causes some confusion; and that both work in collaboration with the business community is an additional reason for confusion.

By way of explanation, the adjective "broad" helps describe career education and the adjective "narrow" describes vocational programs. It is of the utmost importance, however, that readers do *not* equate broad with good and narrow with bad. It just isn't so! Career education and vocational education operate within different boundaries. By design, career education is broad in its coverage of occupations to achieve the goal of providing sufficient information and experiences for career decision making. Vocational education is narrow in that its goal is to provide skills, training, knowledge, and social interaction competencies to prepare individuals for entry into paid employment in a specific job or job cluster.

CAREER EDUCATION OR VOCATIONAL EDUCATION?

A class of fourth-grade students are learning about math and its applications in the world outside the school. The students have taken a field trip to a bank where the functions of a bank and the various jobs in banking were discussed. Today, they have a banking business set up in their classroom. They are depositing money, writing checks, and borrowing money. They are working as tellers, secretaries, and officers of the bank. The physical structure used in this activity was built for the fourth-grade class by junior high school students who are studying the construction cluster of occupations as a "hands-on" experience for career education. So far this year, the structure has served as a post office, grocery store, and city hall.

In another area of the school campus, 13-year-old Brian is participating in a simulated manufacturing activity. His social studies class formed a manufacturing firm to learn about the roles of business, industry, and labor in society. The corporation, complete with officers, stockholders, and workers, decided to manufacture wooden salt and pepper shakers for sale to patrons in the community. Each student has had or will have the opportunity to experience each position in the organization and to work at each job. Brian's job on the assembly line was to punch holes in the bottom of the salt and pepper shakers. After about 45 minutes of punching holes he asked the teacher, "Do some people really do the same thing over and over all day long?" When the teacher replied in the affirmative, Brian said, "I'm going to get another job. I don't want to do the same thing all day every day of my life!"

In another department of the school system, Mary Jo is working on an idea for a window display. She will discuss the plans with her employer this afternoon when she goes to work. Mary Jo is enrolled in distributive education where she is training for a job in selling. She attends formal classes during the morning hours and is employed in a local dress shop in the afternoons and on Saturdays. She is paid a minimum wage and is supervised cooperatively by the distributive education teacher-coordinator and by her employer. She plans to terminate her formal education at high school graduation but to continue her career in selling. She has aspirations to own a dress shop one day.

Which of the three examples described above is an example of career education and which is an example of vocational education? All three are examples of career education in action. Only one, the example of Mary Jo, illustrates vocational education. What, then, is the relationship of career education to vocational education? Broadly stated, career education seeks to remove the assumed distinction between the academic and the vocational learning program, blending them to serve *all* learners at *all* levels of instruction in their quest for productive careers and rewarding lives. The primary goal in career education is to enable every person to make informed choices as she/he develops her/his own career.[2] The greatest barrier to developing one's own career and having command over one's life is lack of information. To choose presupposes a knowledge of available alternatives. If the vast majority of career alternatives are unknown, they are not viable options for the individual. Career education proposes to inform persons K-Adult about the great variety of career options. Vocational education is a very important segment of this all-encompassing concept of career education. Individuals served by vocational education are those interested in preparing for a selected job or family of jobs. If career education has, in fact, functioned effectively, the vocational student should have chosen the job or job cluster based on information about herself/himself and about the job for which she/he is training.

DEFINITIONS OF TERMS

Much has been made of Marland's reluctance to define the term career education. His purpose, as expressed in early speeches, was to let the practitioners in the field work out a definition. Practitioners have done just that. As each state implemented pilot projects, their own definitions emerged. Some of the definitions include all of life's roles while others include only the economic role. Thus, there is a genuine need for at least a broad definition that would establish a parameter within which educators would be able to function. Such a definition has been developed by the Task Force on Career Education of the Council of Chief State School Officers.[3] This definition provides the necessary perceptual framework and, at the same time, provides the freedom necessary for adaptation to local conditions:

> Career education is essentially an instructional strategy aimed at improving educational outcomes by relating teaching and learning activities to the concept of career development. Career education extends the academic world to the world of work. In scope, career education encompasses educational experiences, beginning with early childhood and continuing throughout the individual's productive life. A complete program of career education includes awareness of the world of work, broad orientation to occupations (professional and nonprofessional), in-depth exploration of selected clusters, career preparation, an understanding of the economic system of which jobs are a part, and placement for all students.

There has been some effort to redefine vocational education in broader terms than those specified in the Vocational Education Act of 1963. Since vocational education, however, is currently being funded and structured according to the Vocational Education Act of 1963, subsequent treatment of vocational education here will be based on the definition as set forth in that document. The Act states that vocational education means

> . . . vocational or technical training or retraining which is given in schools or classes (including field or laboratory work incidental thereto) . . . designed to fit individuals for gainful employment as semiskilled or skilled workers or technicians in recognized occupations (. . . excluding any program to fit individuals for employment in occupations which the Commissioner determines, and specifies in regulations, to be generally considered professional or as requiring a baccalaureate or higher degree).[4]

Careful study of the two definitions reveals both differences and similarities that structure the relationships of career education and vocational education. The greatest source of confusion is the essential similarity of the concepts: each deals with the world of work. The greatest difference stems from the way that each concept approaches instruction about the world of work. Career education encompasses educational experiences for all individuals beginning in early childhood and extending throughout an individual's productive life, whereas vocational education is limited to those individuals preparing for paid employment in adolescence and continuing through adulthood.

Career education includes an awareness of the world of work: a broad orientation to occupations, including semiskilled, skilled, technical, and professional; in-depth exploration of occupations; career preparation, including vocational, technical, and professional education and training; and placement for all students. Vocational education, a segment of career education, is designed to fit

individuals for gainful employment as semiskilled or skilled workers or technicians in occupations that are not generally considered professional or to require a baccalaureate or higher degree.

Still another reason for confusion is that many of the same strategies are used to implement the two concepts. It is important to the success of both that parents and the community be involved; however, different individuals are involved for different purposes. Both career education and vocational education employ many of the same teaching-learning strategies, but, again, these strategies are used to achieve different purposes.

Vocational education may, and perhaps should, continue throughout life, but it is initially completed at the high school level, in a post high school technical institution, or in a community college occupational training program. Examples of jobs for which an individual qualifies through vocational-technical education include those in health services, distribution and sales, agriculture, building trades, computer operations, transportation, home economics-related occupations, mechanical and printing trades, and other occupations that typically do not require a baccalaureate degree.

Career education, on the other hand, links learning activities with jobs along the entire range of skills—from the semiskilled to the professional—and, in addition, emphasizes decision-making skills to improve individual choices concerning work and education or training. Career education is, therefore, all-inclusive in that it encompasses vocational education, academic education, and managerial/professional education as well as career awareness, exploration, and selection. Vocational education has the more limited mission of specific skill training for specific jobs or clusters of jobs.

The differences and similarities of career education and vocational education are further explored in the chapters that follow.

INDIVIDUALS SERVED

Career education is for *all* students K-12 and continuing into adulthood, whereas vocational education has its major thrust in the secondary school, sometimes as early as grade 10 but usually beginning with the eleventh grade and continuing through adulthood. Some vocational education courses; such as consumer and homemaking education and vocational agriculture, begin as early as the ninth grade with an orientation emphasis.[5]

Career education benefits all students because it seeks to enable all individuals to make personal, informed career choices as they proceed through life. It has been recognized recently that the choice of an occupation is a prime determiner of the life-style of an individual. With this realization, individuals are choosing desired life-styles and then choosing occupations to fit their life-styles. To do so, they must learn to identify their own strengths, weaknesses, interests, and aversions. These must then be related to the requirements of the world of work, including educational preparation for specific jobs. The decision-making process is vital to a fully useful life. Career decisions may be required several times during a lifetime and may include decisions about promotions and changes in assignments as well as in the selection of an occupation, whether it be semiskilled, skilled, or professional. Vocational education, as it now exists, is for those individuals who plan to enter employment at or before high school graduation or to pursue training at less than a baccalaureate-degree level. Although vocational education is designed for skill development with the result of employment, it serves as an exploratory experience for some learners. Learners may decide on a professional career in the areas for which they have vocational training, or they may use the vocational skills as a means for financing advanced educational preparation. It is a part of our American freedom that education may be used for the purposes most appropriate to the individual's needs.

Proponents of career education believe that vocational education should be expanded to include all secondary school students. It is proposed that no student should leave high school without a saleable skill, that is, without the chance to benefit from multiple opportunities for actual work experience integrated with the school study program. Throughout the secondary school three objectives for vocational education should be emphasized: (1) education for each student that is saleable in terms of the labor market needs; (2) education that increases student options; and (3) education that contributes to a better understanding of nonvocational learning.[6]

PHASES OF CAREER EDUCATION AND THEIR RELATION TO VOCATIONAL EDUCATION

To facilitate working with the career education concept, authorities across the country seem to agree on five phases, spanning K-Adult, of career education and placement: career awareness, career exploration, career orientation, career preparation, and post secondary and continuing education (sometimes called specialization). Placement has a role to play in all of the phases.

Career Awareness

Career awareness receives major emphasis in grades K-6; however, it is recognized that differing degrees of career awareness will continue through a lifetime. The elementary years are not the time for even tentative decisions about careers. K-6 students should become aware of the world of work and the wide range of occupations within it. They should understand how they relate to the world of work and the role of work in their own lives. The elementary grades should include activities that allow students to develop positive attitudes toward work and toward self. Acquiring positive attitudes toward the world of work is a developmental process which begins with self-awareness and gradually moves toward helping students formulate career thoughts so that they will develop an image of themselves as effective workers in a career-oriented society. Career education does not seek to impose any particular set of work values on any individual; however, career education presupposes that one cannot develop personal work values without becoming familiar with those held by others and without developing an understanding of the basic effects of work values upon the individual and society.

Career awareness should include teaching-learning strategies that will help students to—

1. Become aware of the multitude of careers available.
2. Become aware of themselves in relation to the occupational career role.
3. Build foundations for wholesome attitudes toward society and the role of work in society.
4. Become aware of how the basic skills of learning and social development relate to the worker and her/his career.
5. Make tentative choices of career clusters to explore in greater depth in the mid-school years.[7]

Career Exploration

The career exploration phase of career education has been interpreted as appropriate for students in grade levels 6 to 10. Some practitioners implement the exploration phase in grades 7 and 8 while others include any combination of grades from 6 through 10. It is true that flexibility is the key word, for some youngsters are ready for exploratory activities as early as grade 6 while others are still exploring various occupations at grade 10 or even at college entrance.

As the word exploration implies, this phase of career education allows students to explore indepth occupational families of their own choice. Exploration will include activities such as "hands-on" experiences; field trips; contacts with resource people from business, industry, labor, and the professions; and work observation experiences.

The career exploration phase should include activities that will help individuals to—

1. Explore occupational areas of particular interest and to assess their interests, abilities, and aversions.
2. Become familiar with the wide range of careers within each occupational cluster.
3. Develop an awareness of relevant factors to be considered in choosing a career.
4. Gain experience in meaningful decision making.
5. Develop preliminary career plans and arrive at a tentative career choice.[8]

It must be emphasized that plans and career choices are tentative and may be refined and redefined by the individual several times.

"Hands-on" activities should include those activities which simulate or duplicate the work situation. The student should have the opportunity to use the tools of the trade as well as to learn some of the vocabulary, or trade jargon. It is through such activities that individuals begin to clarify their occupational choices. They either identify with an occupation because it meets their expectations or reject it because their concept of the occupation has proved unrealistic.

A nonthreatening atmosphere is essential to the success of exploratory activities. The objective is to motivate students to "try on" a variety of occupations. It is desirable for students to explore unfamiliar clusters of occupations as well as those about which they have some knowledge. Participation is much better if grades are not emphasized and the classroom is free from threat. It is as important to the students' future that they decide that they do not like some occupations as it is for them to discover those they like.

Career Orientation

The orientation phase usually comes at grades 9 and 10. At this stage the student gains further insight into tentative career choices through world-of-work experiences. These may be arranged for formally or informally and may involve spending some time in volunteer activities or paid employment. For example, students interested in the health sciences may work as candy stripers in the local hospital; other students interested in business and office occupations may work as volunteer office help in the school system. Paid summer employment is another avenue of career orientation.

Career Preparation

Career preparation (which includes vocational education) should allow students to—

1. Acquire occupational skills and knowledge for entry into an occupation and/or advanced education and training.
2. Relate a number of high school experiences to generalized career goals.
3. Demonstrate acceptable job habits.
4. Participate in on-the-job training.
5. Select appropriate postsecondary educational and/or training institutions.[9]

The career preparation phase will find some students preparing for careers that require at least a baccalaureate degree for entry; others will be preparing for careers that require post high school education but less than a baccalaureate degree for entry; still others will be preparing for careers that they can enter directly upon leaving high school. According to Hoyt, a number of basic changes in American education must take place if every student is to have the opportunity to follow any one of these three paths.[10] Some of the needed changes are:

1. Initiation of an open-entry/open-exit system of education that allows for the combination of preparation for work and work itself, thus making the concept of school dropout obsolete
2. The allowance of school credit for skills developed outside the walls of the classroom
3. The substitution of performance evaluation for time as the criterion for accomplishing education tasks
4. Keeping the school facility open for longer hours, six days a week
5. A curricular structure that would provide sufficient learning modules to allow students to select a wide variety of learning experiences.

If such changes can be brought about, goals for occupational preparation can be derived for the prospective high school graduate, the school leaver, the post-secondary less than baccalaureate enrollee, the student who expects to be a college graduate, and the individual who re-enters training as an adult.

Postsecondary Phase

The postsecondary phase of career eduation may be termed specialization. It includes programs in both public and private vocational-technical schools, community colleges, apprenticeships, and four-year colleges and universities. Vocational education will take place in the vocational-technical schools, in occupational programs in community colleges, and in technical institutes. The elements of career awareness, career exploration, and career preparation are all included in the postsecondary phase with the basic difference being one of philosophy.[11] It is essential for adults to have flexibility in entry to and exit from the program, so that their needs are better served. It is the adult phase of career education that holds promise of making life-long learning a reality. The postsecondary phase should provide the opportunity for individuals to—

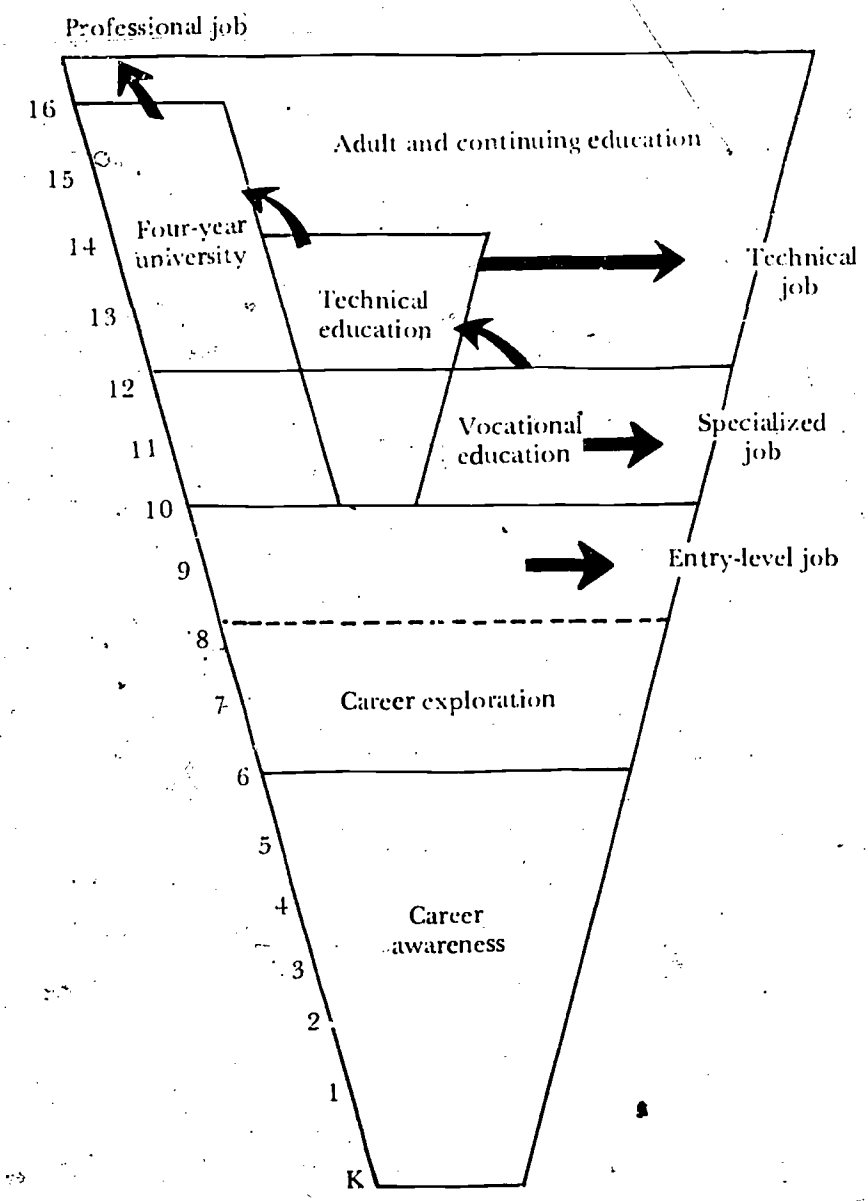
1. Reassess their interests, talents, and capabilities.
2. Develop specific occupational knowledge and skill in a specialized job area.
3. Become skillful in forming meaningful employer-employee relationships.
4. Upgrade present skills or develop new skills.

There is considerable overlapping of the phases of career education. An awareness activity for one individual may be the beginning of exploratory activity for another; the exploratory activity for one may be the beginning of skill training for yet another. One individual may make a tentative career choice during the latter stages of the awareness phase and find that it never changes. Another individual may find herself/himself exploring occupational choices as she/he enters college. Yet another may find that technological progress has obliterated

her/his job; therefore she/he must become aware of and explore occupational alternatives that are available at that particular time in her/his life career.

The phases described above are guidelines to facilitate career education implementation and to suggest major emphases at various age or experimental levels. Vocational education is that part of the career preparation phase that prepares individuals for paid employment in jobs requiring less than baccalaureate degree training. While Figure 1 graphically illustrates where vocational education fits into the overall plan of career education, it does not show clearly the role of vocational education in adult and continuing education. Vocational education would offer training and/or retraining for advancement in recognized, new, and emerging occupations.

Figure 1. U.S. Office of Education's Career Education Model



PLACEMENT

The placement function, although slightly different in application, is a vital component of both career education and vocational education. As in other areas of career education and vocational education, placement and guidance services are somewhat broader in scope for career education than for vocational education.

Placement, in the broadest sense, is a life-long process that involves helping the individual get into the appropriate course, program, school, or job at the appropriate time. The concept of career development is the foundation of placement. Career development refers to the total constellation of circumstances, events, and experiences as individuals make decisions about themselves as prospective workers and then as actual members of the work force. Hoyt has explained the basic nature of career development as follows:

1. Career development is a life-long process that begins early in the preschool years and continues for most individuals through retirement.
2. Personal choices are taking place on a continuing basis throughout the life of the individual.
3. Occupational choices are expressed in many forms and with many degrees of firmness and insight at various times in the life of the individual.
4. Choices are made on the basis of what the individual would enjoy doing; on the basis of what appears possible for her/him to do, given his/her personal and societal limitations and strengths; and on the basis of what is important for the individual.
5. The prime goal of career development lies in its process, not in its end result. The important thing is not what the individual chooses but simply that she/he chooses.
6. The wisdom of career choice lies in the extent to which it is based on reasoned choice, not in the degree to which it seems reasonable to others.[12]

If career education is functioning properly, students will be assisted to plan educational programs consistent with their career interests, capabilities, and aspirations. It is important that students at the middle/junior high school level receive assistance at the time when they have more choice in the subjects they will take. Placement should also operate to locate exiting students, at whatever level they leave formal education, in a job, in post-secondary or technical training, in an apprenticeship program, or in a four-year college or university. Well-planned career education should culminate in 100 percent placement.

Vocational education should also culminate in the placement of all trained school leavers or graduates. A major portion of this placement should occur in the job or job cluster for which the student has trained or in post secondary training for additional skill development. There will be that group of vocational students who plan to enter a four-year college or university for teacher training in vocational fields. The placement function should assist with the selection of an institution that will best meet the needs of the student.

The placement personnel in both career education and vocational education should—

1. Keep a folder on each student that contains information on special aptitudes, capabilities, job applications, work experiences, evaluations of various kinds, test scores, and other usable information.

2. Operate in locating employers who will cooperate with the school by providing work observation and work experiences for students.
3. Keep follow-up data on students for a five-year period.
4. Provide students with career information.
5. Make use of test results and personal information about the students to assist in the decision-making process.
6. Work with student problems on the job. It is the student with problems in keeping a job who needs special attention and counseling.

EDUCATION AND CERTIFICATION OF TEACHERS AND OTHER PERSONNEL

Within the formal educational setting three types of personnel are essential to the implementation of career education in the school system.[13] The first of these is the classroom teacher—both the vocational and the academic. The primary career-related focus of the academic teacher must be in imparting to the students the career implications of their subject matter, whereas the primary focus of the vocational teacher must be on the teaching of vocational knowledge, skills, and attitudes using the student's background of academic skills. If these skills are missing, both academic and vocational teachers must work to remedy the situation.

The second type of personnel necessary to successfully implement career education is the professional counselor. In the school setting, the counselor should possess a solid understanding and commitment to the career development of the students within the total educational program. The counselor must be conversant with sources of data, present employment opportunities, projections of manpower requirements, the demands of employers, and the workings of the labor markets, as well as the various educational and training opportunities available for students.

The third type of essential personnel is the paraprofessional/support personnel specifically concerned with career education. Some must help teachers assemble instructional materials. Others concentrate on clerical functions in the counseling office.

Career education has avoided an approach that asks teachers to add more content to an already overcrowded curriculum. Instead, it has centered on the teacher's primary responsibility to impart substantive content, and has asked how the total resources of the community can be brought to bear on helping students learn more and how the substantive content can be related to work.

Tasks with a career education emphasis that *academic classroom teachers* should assume are to—

1. Devise and/or locate methods and materials designed to help students understand and appreciate the career implications of the subject matter being taught.
2. Utilize career-oriented methods and materials in the instructional program, where appropriate, as one means of educational motivation.
3. Help students develop, clarify, and assimilate personally meaningful sets of work values.
4. Help students acquire and use good work habits.
5. Integrate career education concepts and activities into instructional strategies and teacher-student relationships.[14]

Vocational education teachers are charged with—

1. Providing the opportunity for students to develop specific vocational competencies that will enable students to gain entry into the occupational society.
2. Helping students acquire job-seeking and job-getting skills.
3. Participating in the job placement process.
4. Helping students acquire decision-making skills.
5. Locating on-the-job training stations.

6. Supervising students who are participating in on-the-job training programs.
7. Organizing and working with occupational advisory groups.

Counseling and guidance personnel should—

1. Help classroom teachers implement career education in the classroom.
2. Serve, usually with other educational personnel, as liaison contacts between the school and the business-industry-labor-professional community.
3. Help students in the total career development process, including making and implementing career decisions.
4. Participate in part-time and full-time job placement programs and in follow-up studies of former students.[15]

Educational administrators should—

1. Emphasize career education as a priority goal.
2. Provide leadership and direction to the career education program.
3. Involve the widest possible community participation in career education policy decision making.
4. Provide the time, materials, and finances required for implementing the career education program.
5. Initiate curriculum revision designed to integrate academic, general, and vocational education into an expanded set of educational opportunities available to all students.[16]

Teachers of vocational education are certificated to teach in their area of expertise, that is, cooperative office education, distributive education, homemaking and consumer education, auto mechanics training, or agriculture. A part of the certification requirements is a minimum background and/or work experience in the trade area. Teachers for some vocational subjects are prepared through a higher education professional program; others are hired directly from industry and complete a block of professional education courses to meet certification requirements. Teachers of career education, on the other hand, are certificated in disciplines other than career education. In-service education seems to be the most feasible alternative for training practicing teachers in the selection of career education materials, methods for infusing career education concepts into the ongoing curriculum, and techniques of working with the community until teacher training institutions assume this responsibility.

In-Service Education[17]

Time for in-service workshops and training sessions should be made available beyond the school year. Follow-up sessions held at regular intervals throughout the school year will prove to be beneficial. In-service activities should clarify the concepts of career education, suggest methods for infusing the concepts into the ongoing curriculum, and acquaint the educators with the world of work in their particular community. Educators who have had experience with the career education concept, vocational education teachers, and business-labor-industry-professional people are excellent resources for in-service sessions. Experiences should include "hands-on" activities for teachers to learn how to use and to become

familiar with the hand tools. In fact, teachers become quite excited when actually constructing a project. When asked if she needed help, one teacher was heard to reply, "No, I want to do it myself. I always wanted to take shop in school, but they wouldn't let girls in the class."

People from business, industry, labor, and the professions are eager to talk to teachers about their work and what they expect of an employee, to answer questions, and to host field trips to their work places. This is truly an eye-opener for many teachers whose work experience has been limited to education.[18]

In-service education should point out emphatically that career education does not ask the academic classroom teacher to simply add one or more units to an already overcrowded set of learning objectives. It asks the teacher to change and adapt current lesson plans to accommodate career education objectives and teaching-learning strategies for achieving the objectives.

Some colleges and universities are cooperating with school personnel in in-service activities by meeting part time on campus and working the remainder of the time with educators in their local setting. This is an example of the flexibility necessary if the personnel needed are to be trained. All in-service sessions should afford participants the opportunities to share ideas and evaluate accomplishments. Activities considered essential for in-service training are setting goals and objectives for the overall career education program, developing objectives for specific disciplines and/or grade levels, and developing instructional materials. One caution must be noted: Career education is best taught through activities, but activities are the means to an end, which is to teach students about the world of work.

Preservice Education[19]

Preservice education in the teacher training institutions must have a career education emphasis. Preservice students must have the understanding and capabilities to implement career education. Counseling programs must also have a career education emphasis. Counselors must understand the career education concept and how to involve students in making meaningful career choices.

School administrators need both preservice and in-service training related to career education and to how career education interfaces with vocational education and higher education. If they are to be educational leaders in their schools and communities, administrators must understand career education and how to implement it in the schools. Some colleges have departments of occupational, adult, and career education that offer preservice training. Others are beginning to include career education methods in the professional education of prospective teachers, but much more work is needed.

TEACHING-LEARNING STRATEGIES[20]

Achievement of a career-oriented education calls for major changes in the way we conduct education. A new structure and innovations in curriculum will be required as well as new relationships between academic and vocational education. Innovative teaching and learning strategies will be necessary. The doors of the school must open to let parents and citizens of the community into the school and to allow students to go beyond the classroom walls for learning experiences in the community. Emphasis on career education in the total school program can be achieved in several ways:

1. Concepts relating to careers may be infused into the ongoing curriculum.
2. Pupils may be rotated through minicourses designed around career clusters.
3. Commercially produced exploratory materials may be used, such as those produced for industrial arts and for home economics-related occupations.
4. Instruction organized around simulated work situations that provide a chance for students to explore economic concepts as well as occupational concepts.
5. Cross-discipline planning techniques utilized to add relevance to students' education.

Vocational education is taught as a separate subject with student competency in one job or family of jobs as the primary objective. Cross-discipline planning, however, using a vocational subject as the pivotal discipline, will assist pupils to appreciate the relevance of English, math, art, and other academic subjects to their careers and life after school. Career education and vocational education will employ many of the same strategies but the student outcomes expected will differ. A more in-depth discussion, therefore, of selected teaching-learning strategies for both career education and vocational education is needed.

Infusing Career-Related Concepts into the School Curriculum

"Please! Don't add anything else for me to teach! It's already mandatory that I teach five hours of health and physical education every week and economics education must be included somewhere in the curriculum. I just don't have time to add another thing!"

Do those comments have a familiar ring? Who can take issue with the teacher who made them? Teachers are already expected to do more than they have time for and then someone suggests that schools should be teaching career education! Career education is not an "add-on" to the curriculum, but a refocusing and reforming of the ongoing curriculum that would relate reading, writing, and arithmetic to the way individuals earn a living. Activities for the very young elementary students (K-3) will provide them the opportunity to learn about themselves in relation to what they are learning in school, for example, the teacher may use math concepts to help students describe themselves and others. Students may then be asked to use numbers to describe classmates or themselves using age, weight, height, telephone number, and address. Field trips and excursions on the school campus or only a block or two from school help youngsters learn about

their environment. These excursions and other learning experiences should focus on the workers as well as on the services and/or products produced. For instance, youngsters may find out whether or not the fireman can spend nights with his family, where he eats his meals, and where he sleeps, in addition to how he slides down the pole.

Role-playing activities may be used to assist elementary students in expanding their vocabulary. To replace part of the phonics drills, students may role play careers of parents, older brothers and sisters, other relatives, and friends using the vocabulary of the occupation. While increasing their vocabularies, pupils expand their awareness of careers, the language of careers, and the relationship between language and work. One teacher noticed that her sixth grade class was more interested in a construction project going on outside the classroom window than in the math she was trying to teach. She decided to capitalize on their interest by developing an instructional unit around the construction industy. After the students had researched the construction industry and the various jobs connected with it, improving their reading and writing skills at the same time, they were ready to divide into teams to work on a construction problem. Each team was given the plans and specifications for the vacation home the teacher intended to build the following summer. The teams were encouraged to gather information from construction companies and contractors in the community about the cost of building the home. Resource people invited to speak to the class included an architect, the foreman of a construction project, and a salesperson from the local lumber yard. Students wrote for free pamphlets describing building materials and supplies. Each team submitted a bid for the construction of the house. The winner, of course, was the team with the lowest bid that met all of the specifications. Learning to figure cubic yards, linear feet, and board feet, using decimals, and writing letters was fun, and much easier when it fulfilled a personal need and was related to real-life situations. While the students were increasing their math skills, improving their writing skills, and expanding their vocabularies, they were also learning about occupations in the construction industry.

These examples of the infusing of career concepts into the ongoing curriculum were taken from the K-6 level; similar strategies are appropriate for the middle/junior high school and secondary levels of education. Further examples of such activities are cited below and in the section on cross-discipline planning.

Simulated Work Experience

Both career education and vocational education make use of simulated experiences as a teaching-learning strategy. Simulated experiences recreate conditions that mirror key elements of a situation outside the classroom so that the student must make decisions and act as if she/he were actually operating in the real environment. Simulated experiences, including coping skills and "hands-on" activities, serve as a means for providing career exploration for middle/junior high school students. Vocational education makes use of simulated experiences to teach human relations skills, work attitudes, saleable skills where on-the-job training is not feasible, and other knowledge related to employment.

In addition to infusing the career education concepts into the ongoing curriculum at the middle and/or junior high school level, career exploration would provide "hands-on" experiences so that students might get the feel of jobs. "Hands-on" career exploration activities and economic education learning may be successfully combined in a simulated experience. For example, one eighth grade class decided to manufacture and distribute a product. The corporation was

formed, officers elected, and five shares of stock were distributed to each member. Committees were formed to research the product to be manufactured. Each committee submitted a written report of findings that included the product to be manufactured, materials needed, estimated cost of production, and the proposed market for the product. These reports were presented orally at the stockholders' (class) meeting. The product to be produced was selected by a vote of the stockholders.

After a trial run, the per unit production costs were computed and an estimate of the number of units to produce was made. To obtain capital for the project the officers of the corporation went to the local bank to borrow the money. They presented their problem to the loan officer of the bank. He treated the young people in a very businesslike manner. The students learned something about the operation of banks and about credit. They learned how to fill out an application for a loan, and the concepts of interest, collateral, and promissory notes became more than words that adults use. The officers reported on the happenings at the bank to a meeting of the stockholders.

Another source of capital for the corporation was the selling of additional shares of stock that any of the stockholders could buy. The product was school related; therefore, sales prospects were good. The cost of production and a percentage markup for profit were added to arrive at a sales price. Advertising copy was written for the school newspaper and for the local newspaper. Production began and sales were good. Each stockholder (student) was allowed to dispose of his stock as he wished. One stockholder sold all of his stock for 10 cents each and nine students sold two shares each at the same price. One stockholder held 17 shares of stock when the project ended. Debts were paid, profits were computed, and dividends were paid at the close of the project. The stockholder who sold his five shares had the smallest amount of money. The most money earned was $12.51. Each student was asked to account for the way her/his money was spent. Clothing, school supplies, sports equipment, grooming aids, and snacks were items most often purchased. One individual spent his entire dividend for candy and distributed it among his friends.

As a result of this work experience, students gained an insight into the following career-related and economic concepts: capital, credit, interest, payment of debts, profit and loss, investments, work and its rewards and limitations, management and labor, repetitiveness of assembly line work, some of the jobs related to manufacturing, and the rewards of using money to satisfy one's needs and wants. Concurrently, students learned math concepts and how they are used in business and industry. They used an electronic calculator, a tool of industry; their language arts skills in oral and written reporting and advertising; and their reading skills as they researched products and made decisions about what to produce. New words became a part of their vocabularies.

Vocational education uses such simulated work experiences where on-the-job training is not available nor feasible. An example is the business and office education classroom that simulates office conditions both physically and operationally. The "office" is equipped with the business machines and business forms students would expect to encounter in the real world of work. The in-basket/out-basket technique is used for problem-solving experiences. Problems are based on situations actually faced by those employed as office workers. Such simulated work experience has the advantage of pinpointing particular problems that the teacher feels need emphasizing.

Minicourses

A selection of minicourses is another avenue for providing exploratory experiences in a variety of occupational clusters. A minicourse ranges from three to six weeks in length and, therefore, is not utilized by those programs that aim at skill development. The full range of occupations should be covered in each cluster, that is, semiskilled, skilled, technical, and professional areas. Ideally, enough minicourses are available to allow the students several alternatives for exploration. The offerings should be planned to expose students to all of the career preparation programs offered in the secondary school. Teachers for the minicourses may be academic teachers, vocational education teachers, parents, or resource people from labor, business, industry, the professions, or any combination of these. Extensive use is made of resources from business, industry, labor, and the professions if the courses are taught by the regular classroom teacher.

Minicourses are usually organized in a series and are offered as a separate subject rather than as a part of other school subjects. Field trips, work observations, and "hands-on" experiences may be incorporated into the classes to give the students the opportunity to experience the occupations. Minicourses are usually offered for the middle/junior high school student; however, they may be offered as late as the tenth grade. Minicourses at the high school level are usually designed to assist students in developing coping skills, consumer skills, vocational skills, or personal development.

Work Observation

Both career education and vocational education depend upon the work experiences available through business, industry, and the professions. Work observation means placing the student in a work situation for one or more days to observe individuals actually performing on the job. This teaching-learning strategy is particularly appropriate for orientation purposes. It may be used as an exploratory experience for career education although skills may also be developed. The experience may be paid or unpaid and provide input for the decision-making process. The student participates in the work to find out whether or not she/he would like this occupation for her/his life's work.

The vocational education work experience, known as on-the-job training, or cooperative vocational education, trains the prospective worker for paid employment in a specific job or family of jobs. The student worker is supervised by her/his teacher and by the cooperating employer. The work experience is directly related to the occupational objective of the student and makes up a part of the school day. In the usual arrangement, the student spends half a day in school and half a day on the job.

Cross-Discipline Planning

Few students go to school simply to learn how to lead the "good life." They seek education and training that will give them a return on their investment and the capability to attain the good life through gainful employment. One method of integrating career education concepts into subject matter is by planning teaching-learning activities across disciplines.[21] Suppose that the advertising unit in distributive education (a vocational education program) is selected as the pivot discipline for infusing career education concepts into other substantive content for high school students. Advertising is a nonpersonal, persuasive-communication

from seller to prospective buyer. Within a typical advertisement display, the essential skills of proper word usage, punctuation, and sentence structure (English); balance and proportion (mathematics); symbols, designs, and shadowing (art) may appear. When the theme and emotional appeal of the advertisement are analyzed, the student is into the discipline of social studies. Following is an example of the use of an advertising unit of distributive education as a pivot discipline for cross-discipline planning.

Advertising and the English discipline

Concept—Formulating and evaluating effective word usage.

Activities—Make available to students illustrations from various advertisements and ask them to analyze the word usage. Ask students to suggest words or expressions that will make the advertisement more effective.

Advertising, the mathematics discipline, and consumer education

Concept—Advertising costs add to the cost of the product.

Activities—Students analyze the cost of the per unit production of an advertisement. After student has computed all the costs generated by the production of an advertisement as well as its cost of exposure in the media, have her/him show how this cost must be added to the cost of the article or service advertised to arrive at the cost to the consumer. How much would the product cost without advertisement? Would the consumer know about the product?

Advertising and the social studies discipline

Concept—Advertising uses the emotional approach or the cold logic approach to motivate human behavior.

Activities—Pupils should understand the terms pertaining to human behavior such as motivation, emotion, and logic. Then ask students to analyze a collection of advertisements and to classify them by appeal.

Advertising and the science discipline

As a nation interested in personal health and well-being, the best avenue for cross articulation of the science discipline with advertising is through a biology or physiology unit focusing on individual and public health.

Concept—Medicines, cures, devices, and products are often advertised appealing to individual health or public health.

Activities—Select an advertisement dealing with human distress, such as an upset stomach, and produce a series of ads dealing with cures for this distress. Have the pupils determine whether the theme of the ad is consistent with the facts available about such distress.

Advertising and the art and music disciplines

Concept—In television advertising, art and music become allied for some very effective advertising.

Activities—Ask pupils to view television commercials and comment on the methods and the effectiveness with which art and music are combined. Ask them to list some jobs that might be available to persons interested or talented in art and music. Ask them to analyze the emotional appeal of the music.

Concept—Illustrations, emblems, and trademarks are all the products of the art department; rarely do you see an advertisement with just the message and no artwork. Artwork is the attraction in an advertisement; it is the signal flag for the message.

Activities—Supply the students with unfinished advertisements with just the written message on them. Ask students to produce artwork to make the advertisements eye catching.

Advertising and guidance

Concept—The advertising industry is a great employer and has jobs available from the job-entry level to levels requiring a high degree of training and experience.

Activity—Ask students to draw up a chart of their interests and capabilities and to ascertain if these interests and capabilities are consistent with those required for success in advertising.

Field Trips and Speakers from Business-Industry-Labor-Professional Community

Field trips to business and industry and the appearance of resource speakers add relevance to both career education and vocational education. Field trips and resource persons serve awareness and exploratory functions for both career education and vocational education. Career education, however, exposes students to a wide variety of occupations and occupational clusters whereas vocational education classes visit the businesses and industries that directly relate to the occupational goals of the members of the class. Well-planned field trips are an effective and relatively inexpensive strategy for acquainting students with a wide variety of occupations. A visit to a plant affords the opportunity for students to observe and compare several types of jobs in one occupational cluster. Although field trips have been used for many years, in the majority of cases focus has been on the product or service provided by the business, industry, or professional person, rather than on the worker and the possibility of the work as a career for the student.

Career education requires that the experience focus on the workers. What are the working hours? What particular talents are necessary for one to be employed in this work? What education and/or training is required for entry-level employment? What do the workers like about their work? What do they dislike about their work? How does a person go about getting a job? Vocational education students focus on the industry as a place of employment in the very near future. Are jobs available at present? What is the beginning salary? How do I apply for a job? Will it be to my advantage to enter postsecondary training? What are the advancement possibilities?

For career education purposes, it is desirable to have one person responsible for coordinating field trips and arranging for resource speakers in order to avoid overburdening one business, industry, or resource person. It also helps prevent

student boredom from repetitive field trips or appearances of resource persons in class. It is recommended that files of resource persons and field trip sites be kept in a location convenient for teacher use. The coordinator of field trips may be the principal, the counselor, or some other person assigned to this responsibility. The coordinator should have or develop good rapport with the community. For vocational education purposes, the vocational education teacher in a specific vocational training program or the coordinator of vocational education programs is generally responsible for organizing field trips and locating resource speakers for vocational classes. These activities are usually worked out with, and directly related to the job-training stations.

Inviting resource persons to speak to classes about their work is one means of getting the community into the school. The primary purposes, of course, are to expose students to a great variety of occupations and to the ways that people feel about their work. At the same time citizens are becoming acquainted with what is happening in the school.

Career education emphasizes the use of resource speakers from a wide variety of occupations and job levels, that is, semiskilled, skilled, technical, and professional. Resource persons for vocational education are from businesses, industries, and postsecondary training institutions that are directly related to the vocational training program. A vocational class may hear some speakers on general employability skills such as attitudes, work habits, and human relations. Community surveys will help locate businesses, industries, or professions that are willing to furnish speakers or demonstrations for classes. Teachers may also locate excellent resource people by surveying students' parents. As with field trips, it is desirable to have one person coordinate the resource-speaker activity for career education. The vocational education program will take care of speakers for vocational classes. In either case, it is wise to maintain a speaker file.

These teaching-learning strategies are not intended to be an all-inclusive list; rather they represent examples of how the same strategies are used to achieve the goals and objectives of either career education or vocational education.

ADVISORY COUNCILS AND STEERING COMMITTEES

Both career education and vocational education use advisory councils and steering committees to provide general direction for vocational education programs and career education efforts. Membership in the advisory councils and steering committees is somewhat different, however. Career education draws from a broad occupational representation, whereas vocational education draws primarily from the trade area being taught.

The career education advisory council serves three purposes: (1) to advise on what career education should be for any given community; (2) to serve to spread the good word about career education; and (3) to assist in selecting community leaders to help with career education activities. Membership of the advisory council should come from business, industry, professions, education, labor, parents, and students. The chamber of commerce, civic clubs (including those whose membership is primarily women), PTA's, and other such organizations should be represented on the council. Working committees suggested for the council are steering, publicity, community service, in-school, and placement. Committees might consist of a chairperson, vice chairperson, secretary, and two members. This would result in a total membership of 25 for the council—large enough to represent a community but not so large as to be cumbersome to work with comfortably.

Steering committee—Should consist of the chairperson of the advisory council and the chairperson of each of the other committees. It should function as an executive body to provide general direction and coordination and to call special council meetings.

Publicity committee—Should work with all available media and local organizations to publicize career education. Some activities that have proved successful include a special edition of the local newspaper, a career education news leaflet or flyer, window and store displays, radio spots, public address announcements, and TV presentations. This committee would be responsible for assisting with interpretative presentations for civic and service clubs and other occasions as needed.

Community service committee—Should identify, organize, and develop career education learning experiences in the community. This committee can help secure sponsors for special events such as career fairs, career days, poster contests, or window display contests to stimulate interest in career education activities.

In-school committee—Should work with faculty, students, and community resources to facilitate integration of career education into the ongoing curriculum. It might assist the school with the development of a file of resource persons, possible sites for field trips, and site for work observation and work experience.

Placement committee—Should assist with work experiences for students. It should keep the school placement office current on changes in educational requirements and other job qualifications and on work situations available for student placement.

Generally, each vocational education program has its own advisory council. The members are selected from the trade area being taught (including both employers and employees), school administrators, students, and parents. The voca-

tional education advisory council helps keep the teacher abreast of changing techniques and equipment being used in the trade, helps publicize the accomplishments of the vocational education program, and assists with locating work stations for on-the-job training and placement of students upon completion of training.

If the vocational education department is large enough, a steering committee may be organized. Membership usually includes a representative from each advisory council, students, and parents. The steering committee would provide input for the general direction of the total vocational education program and serve as a public relations vehicle to keep the community informed about the vocational education program.

CONCLUSION

An attempt has been made in the preceding pages to delineate the differences between career education and vocational education. If a dozen educators were to list the differences between career education and vocational education, a dozen different lists would be forthcoming. But most lists should enumerate the following:

1. Career education is for *all* students, whereas vocational education is for students who are interested in acquiring skills for a particular job or job cluster.
2. Career education begins in early childhood and continues through adulthood; vocational education usually begins no sooner than grade 10 and continues through adulthood as needed to implement career decisions.
3. Career education emphasizes both unpaid and paid employment, including entry level through professional leave, while vocational education emphasizes paid employment in semiskilled, skilled, and technical jobs that require training at less than the baccalaureate degree.
4. Career education is a general emphasis for the total school program; vocational education is a separate subject or department.
5. Career education has as its major thrust career decision-making based on awareness and exploration, while vocational education's major emphasis is on skill training.
6. Career education concepts are integrated into the ongoing curriculum, whereas vocational education curriculum has as its core substantive content in a trade area.
7. Teachers for career education would generally be the regular classroom teachers who have had in-service training and, hopefully, will have preservice education in techniques of infusing career education objectives and activities into the ongoing curriculum. Vocational education teachers, on the other hand, must have a background and/or work experience in their trade area as well as professional teacher education.

Career education and vocational education employ similar teaching-learning strategies: to work with advisory councils, to utilize the guidance services, including placement, and to work with the business community. The difference lies in the student outcomes expected, which are much broader for career education, and in the number of business people involved. Career education works with representatives from a wide spectrum of occupations and at all skill and professional levels; vocational education works with people who represent the trade area being taught.

FOOTNOTES AND REFERENCES

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