This monograph is designed for those charged with implementing career education programs. The first four of the nine sections clarify basic concepts. In section 1 career education is defined as an effort to help individuals acquire and utilize knowledge, skills, and attitudes which make work meaningful, productive, and satisfying. In section 2 the need for involving students in developmental and comprehensive work-related sequences is affirmed. Section 3 defines the target population as all teachers and learners. Career education responsibilities, as stated in section 4, belong to the total instructional staff. Section 5 focuses on career education as a systematic and developmental part of the total school program. The next four sections discuss aids to teaching and learning adjustment. Section 6 emphasizes a teaching philosophy which includes positive work habits, teaching strategies, and values. In section 7, the teacher's attention to the learning purpose is stressed. Techniques providing work-related experiences are described. Section 8 advises planners and teachers on how to infuse career education into school programs. Examples of basic skills and career-related activities are given for grades 3, 6, and 11. In the final section, implementation suggestions are presented in relation to administrator readiness to allow change, teacher readiness to make change, and community readiness for change. (CSS)
Career Education
Teaching/Learning Process

March 1978

Office of Career Education
U.S. Office of Education
The opinions expressed in this report do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.
Barbara Preli once won an award as Outstanding Teacher in Louisville, Kentucky. It was, in large part, due to her extraordinary skill and dedication as a classroom teacher, that led to her appointment as Career Education Coordinator in her school district. Barbara Preli believes in teachers because she is a teacher. When we decided we needed a monograph on "Career Education and the Teaching/learning Process," Barbara was the obvious choice as author.

There are many key messages conveyed in this monograph. First, Ms. Preli makes clear her own clear dedication to the importance of instructional content. Readers should be aware, throughout this monograph, that helping students learn more instructional content is a major, over-riding objective of Ms. Preli. She has illustrated very well the ways in which career education serves as a vehicle for accomplishing this objective.

Second, Ms. Preli makes clear, in several parts of this monograph, her commitment to all the basic goals of education; i.e., she is not preoccupied only with the goal of education as preparation for work. Her major emphasis, it can be seen, is on motivating students to learn subject matter and on introducing variety into the teaching/learning process in order to accomplish this goal. Her dedication to helping teachers provide students with new and exciting ways to learn is so great as to make it impossible for her to worship unduly the goal of education as preparation for work. By placing this goal in a proper perspective, she does a great favor to career education.

Third, Ms. Preli was, in my opinion, unduely modest in the examples of career education activities presented in this monograph. The literally thousands of hours of time she and her staff have devoted to helping teachers invent these career education approaches to learning will not be apparent to those readers who have never attempted to do what Ms. Preli does every day. Her constant plea, in this monograph, is that teachers be given time to develop career education materials and to infuse them into the teaching/learning process. This admonition comes from the long and rich experience she has had in implementing career education in her school district. It is hoped that educational decisionmakers will take these recommendations seriously.
Fourth, the section on implementing career education in a school district is filled with practical and useful suggestions for educational administrators. The need for administrative support and encouragement for classroom teachers is very well illustrated in this section.

Finally, what, to me, is the most important "message" of all those found in this monograph is Ms. Preli's insistence that classroom teachers be held accountable for infusing career education into the teaching/learning process as a regular part of their instructional responsibilities. No where does she imply that this is something to be added to existing teacher responsibilities. Instead, she concentrates on providing helpful hints on ways in which teachers can meet responsibilities they have had all along.

I hope that professional educators reading this monograph will agree with the position Ms. Preli has taken that assigns such great faith and confidence to classroom teachers. I hope that parents and community members reading this monograph will gain an even greater appreciation for teachers by doing so. For my part, I am deeply grateful to Ms. Preli for sharing her thoughts and commitments with all of us.

Kenneth B. Hoyt, Director
Office of Career Education
CAREER EDUCATION

TEACHING/LEARNING PROCESS

By

Barbara Stock Preli
Career Education over the past years has evolved from an initial concept to a real fact. Much of the literature and discussion has been devoted to four basic areas:

- Definition
- Rationale - Need
- Target Population
- Role Leadership

After various stages of development, general agreement has been reached on the above issues. Occasionally an article will appear re-analyzing various terms or justifying a particular role group. While divergent thinking is often constructive, most local implementors have reached consensus on the above issues and are moving beyond jockeying for "ownership" to the more important task of implementation.

WHAT IS CAREER EDUCATION

"Career Education is an effort aimed at refocusing American education and the actions of the broader community in ways that will help individuals acquire and utilize the knowledge, skills, and attitudes necessary for each to make work a meaningful, productive, satisfying part of his or her way of living."

Local practitioners are careful to point out that preparation for work is considered one of the basic goals of education. Career Education is not designed to solve all the problems of education; but to refocus education on one of its goals, preparation for work, as part of the total educational endeavor. It is not developed as an isolated package but viewed in context with the total educational program and interrelated with other basic educational goals within the delivery system of the school program.
The above definition can be further clarified by looking at the student outcomes. What will the students accomplish? The learner outcomes, as defined by the United States Office of Career Education, are:

- Increased self-awareness
- Increased basic academic/vocational skills
- Increased awareness of work values
- Increased awareness of knowledge about work
- Improved work habits
- Increased work getting and seeking skills
- Increased placement
- Increased awareness of means for continued education

Career Education addresses itself in a systematic manner to each of the above outcomes.

**RATIONALE - NEED**

Many research studies, articles, and community surveys indicate the failure of education to help students leaving the system to understand the changing relationship between education and work. Whether such criticism is justified or not, data indicates a majority of students are leaving the system with:

- lack of employability skills
- limited knowledge of available occupations
- limited job seeking, getting, and keeping skills
- little recognition of the values and rewards of work
- limited decision making skills
- little awareness of the purposefulness of education to the world of work

Data reflects a need for strengthening these areas with all students and at all levels of the school program. Basic habits and attitudes need to be developed in the formative primary years and continued in a systematic, developmental process throughout the students development.

"Aren't we already doing this?" is often asked. Simply stated, a qualified answer is yes. There have been many career-related activities randomly conducted in the schools. The difference is that Career Education, as a concept, insures
that these activities will be for all students in a developmental and comprehensive sequence within the framework of the total curriculum.

TARGET POPULATION

Career Education is for all who teach and all who learn. This would include all students,

special and regular programs,

all persons involved in the teaching/learning process within the school as well as the broad community outside.

WHO SHOULD DO IT?

There has been some misunderstanding in the past that career education is synonymous with various areas of the school program, e.g. vocational education, career development. I think perhaps this is a case of terminology and one of not understanding the total scope of career education outcomes. The outcome areas which define what career education is all about describe a total concept. Our attention needs to be focused on all parts of the concept, those that relate to academic skills, career development and vocational skills. The total concept embraces all of these areas and is not narrowed to one specific portion.

Re-examination of the outcome areas clearly illustrates that career education is more than the career development process. While Career Development is the organizational framework for career education, the teaching/learning process is the primary delivery system for career education. Career Education extends beyond career information and decision making to include the broader scope of the relationship between education and work. It is more than the preparation of work technical skills and includes work values and habits. The total concept embraces career guidance, vocational education and academics.

At the local level, where the concept is being implemented, the debate of who
should do it has long been settled. Analysis of the stated learner outcomes and existing programs in school districts makes it apparent that the delivery of Career Education is the responsibility of the total instructional staff. It is a collaborative effort of all those involved in the school program. This would include teachers, counselors, principals, supervisors, librarians, curriculum developers, etc. The specific task or responsibility may differ but all contribute in many interrelated ways to the student outcomes.

Instruction  
Guidance  
Community

**CAREER EDUCATION GOALS**

Vocational Education  
Special Education  
Research-Evaluation

One of the most valuable lessons learned over the past years has been that the ultimate responsibility for Career Education lies with those accountable for the basic goals of education in the school system. The persons responsible for the total school program must plan for career education as one of the basic goals of education just as they plan for the development of basic reading and math skills. Strong educational leadership is needed to keep career education's place in the total school program in perspective and not allow vested departmental interests to overshadow the concept implementation. A local district coordinator should assist in the responsibility for daily operations, but the commitment must come from those initially responsible for the total school program.

The delivery of career education represents a collaborative effort of the total instructional staff along with assistance from the home, family, and community. This can only be achieved if all persons involved in the total development of the child work together to mutually implement the student goals.

Local coordinators are faced daily with questions of: How can I do this?
What does this mean to me? Many of these questions are coming from classroom teachers who, as managers of the teaching/learning process, carry the bulk of the responsibility for achieving stated outcomes with students. While it is my belief that career education is a team effort, I also know in reality if nothing in the way of career related activities occurs in the classroom there will be little change in student outcomes.

The teacher, as the daily manager of the learning environment, holds the key to the implementation of the concept. They are with the students daily and have the most influence in the establishment of a relationship between education and the world of work. As the organizer of learning experiences, they need to include parents, counselors, and members of the community as resources in the learning process.

**TEACHING/LEARNING PROCESS**

There has not been a great deal written concerning Career Education and the teaching/learning process. If we have not carefully analyzed the teaching/learning process and what changes are needed, we cannot answer these questions:

- Where does this fit in the school program?
- How can we do this?
- Isn't the curriculum already too crowded?
- Is this another add on?

The main emphasis of this monograph will focus on Career Education as a systematic and developmental part of the total school program:

- Its relationship to the teaching/learning process
- Readiness of the teachers, administrators, and community to make changes
- Suggestions for concept implementation

It is important to clarify that the following analysis and recommendations come from one who is responsible for the daily operations of implementing career education in the real world of the schools. I feel it's important to state my
bias that students need a well-rounded curriculum that addresses the total development of the student: academic, aesthetic, social, moral, and physical, as well as preparation for the world of work.

In these changing times, education is being asked to do a variety of things for students. It is not necessary to emphasize or select one basic goal over another if we plan from a total program perspective. This allows for all the basic goals of education keeping in mind individual needs and modalities of learning, while still being accountable for our efforts. As education strives to meet the many individual needs of the students, it is necessary to keep in mind that such endeavors are shared with the home, family, and community.

What then is the relationship of Career Education to the teaching/learning process? The teaching/learning process is not a delivery vehicle that is unfamiliar to those involved in education. It has served as the traditional vehicle for the goals of education. Much of an educator's time is spent in college and graduate school understanding the process and how to use it effectively as a method for working with students towards stated objectives in order to make possible meaningful learning of skills.

The outcome areas of career education reflect certain skills and understandings necessary for the goal of preparation for work. Adjustment within the teaching/learning process to include emphasis on this goal would include:

- Inclusion in Philosophy of Teaching
- Emphasis on purposefulness of learning
- Variety of teaching techniques
- Threading/weaving/infusion process

It is important to examine each of these in detail to clearly understand the relationship between career education and the teaching/learning process.
PHILOSOPHY OF TEACHING

All educators have developed their own philosophy of teaching. This has been formed by many kinds of experiences and develops as one gains new knowledge and skills.

The importance of preparation for the world of work as a basic goal of education needs to be included in pre-service and graduate level courses at the university level. While local systems are in the process of training and retraining, it is crucial prospective educators formulate this goal as part of their foundation in education early.

For those already involved in the teaching/learning process it is necessary, from time to time, to reevaluate their philosophy to keep abreast of changing times. School systems and universities working together should be able to address this need for all groups involved.

If preparation for the world of work is to be emphasized as one of the basic goals of education, there are several areas that need to be highlighted:

- the development of good work habits
- the use of positive teaching strategies

Inclusion of the goal as part of one's philosophy of learning necessitate a clear understanding of the concepts and rationale for career education. Once the concept has been internalized the other areas can be addressed.

Within the philosophy of teaching we need to value and utilize positive teaching strategies. Most students are aware of their problem areas and where they need improvement. While one must benefit from mistakes, much depends on how this learning takes place. A student with a positive self-image has the confidence to try again. If we constantly point out the negative aspects of children's efforts, how can they possibly gain the confidence to learn from each experience?

A teacher who emphasizes success does much to contribute to the positive environment of learning. While it is necessary for students to recognize areas of
improvement, the manner in which this is pointed out is crucial. The self-image gained during the school years will carry over to the students later life and the ability to learn on the job.

Employers, when asked why Joan or Johnny can't work, quickly reply, lack of good work habits and attitudes. It is important that greater emphasis in the process of teaching be placed on the development of "work habits" and "work values" in a consistent manner.

Upon examination of the term work habits, we find the same skills necessary for work in school as work on the job: e.g.

- attendance
- punctuality
- listening and following directions
- task completion within stated time and criteria
- caring about doing a job well
- ability to get along with others

All of these are essential both in the classroom and on the job. It is important that the development of these skills be consistent and the relationship between their usefulness both now and later be clearly identified starting in the early years where habits begin to form.

Work values as perceived by the student are also crucial to the ability of holding a job. e.g.

- all jobs have worth and dignity
- the contribution of jobs to society
- work roles for some are leisure time activities for others
- work roles are interdependent
- career development is a life long process

These values are inherent within the school as well as on the job.

Most educators strive to develop good work habits and values with their students. The need is for consistency, grade by grade, and with all teachers. Reasonable expectations and emphasis on quality points out to students that these skills are important and will have a lasting effect on their lives. It is not
enough to just establish expectations, but teachers must develop and teach good work habits and values with students as part of the learning process. All teachers should value as part of their philosophy of teaching what the students' future life will be and understand the role good work habits play in the total development of the child.

Teaching good work habits and values is not enough. Persons involved in the teaching/learning process must also apply these to themselves. Students view teachers as role models, and it presents a confusing dilemma if expectations for students conflict with what the teacher, as a person, practices.

Development of good work habits, positive teaching strategies, and work values all need to be included in the personal philosophy of teaching if the teacher is to accomplish these goals with the students.

**MEANINGFULNESS - PURPOSEFULNESS TO THE TEACHING/LEARNING PROCESS**

There are many reasons why one learns:

- usefulness in work or leisure time
- learning for learning sake
- cultural development
- enjoyment

It could be one or all of these reasons. A key motivational factor on both continua of the teaching/learning process is knowing WHY one is learning.

Every student has the right to understand why it is important to learn what is being taught. Every teacher has the responsibility to know what is being taught and its purpose.

Throughout a teacher's college preparation concentration was focused on content and method. Little time was spent on establishing who uses what is being taught and for what purpose.

"Why am I teaching this?" The WHY in teaching needs to become a part of the
teaching/learning process. This is especially true with the emphasis being placed on the back to basics movement. Respondents vary on the definition of basics but traditionally, the emphasis has centered on the development of reading and math skills.

When questioned as to why reading and math skills are so important, most persons will respond that these skills are essential to a person's future. There are not many jobs that do not require ability in these skill areas.

The relationship between basic skill development and future job success further emphasizes the need for pointing out the purpose of what is being taught as well as who uses reading and math in their job. The why and purpose often provide motivation for those who are learning. Perhaps the why is in many ways as basic as the development of skills.

Several changes will be necessary in the teaching/learning process to include purposefulness/meaningfulness of learning. The first focuses on the process of delivery. The second concentrates on understanding the purpose of what is being taught.

The process of delivery or using purpose as motivation for learning is a redirection of content presentation. e.g.

"A middle school math teacher is preparing to introduce the study of right angles. They could ---

. invite a local draftperson to be interviewed by the class as to how angles are used on the job.
. give examples of common math problems that need to be solved in drafting."

This provides the why of learning by a simple change in presentation. It also provides the students with a different role model, other than the teacher, to point out the relevancy of the math content.

The process of utilizing the purpose as motivation necessitates planning on
the part of the teacher:

- the content or instructional skill is determined
- who uses it
- how can both be taught together

The why is combined with instructional content to provide relevancy. The activity could be an introduction to the content or the culmination of a unit. This process enables students to see the relationship between education and the world of work in a real way.

The second change focuses upon the awareness of teachers at the knowledge and attitudinal level. Who does use what they are teaching and for what purpose?

Teachers represent a variety of backgrounds as relates to the world of work. Throughout their professional development emphasis has not been placed on a variety of jobs. Staff development needs to be provided for teachers to explore and become aware of the who and the why. As planners of relevant learning experiences, their background needs to be enriched and opportunities provided for becoming acquainted with the broad world of work.

Knowledge of jobs as they relate to the skills being taught is only part of the answer. The teacher must recognize the value and worth in providing career related activities to enhance basic skill development. The process of meaningful purposeful teaching must be an enthusiastic, natural one if the teaching style is to be effective with students. The teacher must also understand and value the relationship between education and work.

Variety in Teaching/Learning Process

The teaching/learning process, over the past years, has been flexible in methods and delivery strategies in order to keep pace with the vast amount of technological change. It is rather difficult to say one method works better than others because of the individual differences of students. Education attempts
to meet each child where they are and develop them to their fullest potential with a variety of methods.

Career Education blends a variety of techniques that are already familiar to some teachers in the teaching/learning process. The easiest way to clarify these techniques is to provide a short description.

**Interview**

A class or individual questions workers about their job. It is an excellent means of research, listening, inquiry, and communicating.

Students participate in:
- locating pre-interview information
- formulation of questions
- conducting the interview
- follow up activities

**Research**

Research about the world of work can be conducted by every child in every grade level. The amount and mode of research depends upon the individual child.

Research can be accomplished in many ways: written reports, interviews, films and filmstrips, recordings and tapes, books, charts, letters, newspapers, magazines, commercials, etc.

**Discussion**

Discussion is a useful tool for planning activities, problem solving, attitude and value clarification about the world of work.

The teacher creates an aware, free, accepting atmosphere. The students should feel free to express their views in an appropriate manner.

Guidelines are established before each session begins. Teacher lecture and child-teacher-child exchanges are avoided.
Bulletin boards serve to focus attention, stimulate thinking, and display children's activities. A career bulletin board should reflect the career theme or career value.

Any of the following general themes could be developed for a specific subject area or classroom, e.g.:

- A Rainbow Of Careers
- The Many People Who Work On
- 5 Star Careers
- The Wonderful World Of
- What Can You Cook Up For A Career
- What Are The Educational Requirements?
- Careers In
- Spread The Word About
- Be A
- Consider A Career In

Hands on activities are those activities which entail actually performing those tasks which a worker would do in a certain occupation. These activities are conducted in a simulated situation. Hands on activities give the students an opportunity to associate skills necessary to perform a certain job with their own interests, talents, and capabilities.

A field trip is an excellent way to gather information about the world of work on a first hand basis. It could be an initial or illuminating activity. Workers can be viewed in real-life settings as they carry out their daily roles and responsibilities.

Experiences should be carefully planned in advance. Questions should be developed to bring purpose to the trip. A special emphasis needs to be placed on persons in the jobs.
Learning Centers

Learning centers are special areas designed for individual and small group learning activities. Learning centers can be used in a variety of ways depending upon the teachers purpose.

1. Total learning environment
2. Remedial work
3. Drill
4. Interest activities
5. Enrichment activities

A career theme can provide an excellent motivational theme for each of these purposes. E.g.,

Interest centers of tools can provide some hands-on experiences for children.

This provides the student with a chance in a structured, planned situation to spend time observing a model or models carrying out their daily duties on the job. It presents work in a real life setting. Skills and qualifications can be analyzed as well as interests and talents examined.

The internship program is a non-paid experience for secondary students in a job area of their choice.

The amount of time may vary.

It provides students with opportunities to:
- explore the day to day, hour to hour duties, and responsibilities of a job
- acquire knowledge of other jobs related to his job choice
- observe the career lattice within a job area
- interact with a successful role model
- participate in hands on activities
Role playing provides the opportunity for the students to act out a work situation and to examine carefully their interests. A game of charades could be played. Cards can be prepared with pictures of workers with or without a few suggestive comments on tasks performed by the worker to give students an idea for the role play situation. Students can draw and then role play the worker for others to guess.

All of these techniques emphasize a more activity-centered approach to the teaching/learning process. One where students are actively but constructively involved in the process of learning with strong emphasis upon the relationship between education and the world of work.

The teacher, in utilizing a variety of techniques as part of the instructional delivery process, is not confined to the world of the formal classroom - but extends the classroom into the community to the real world. As manager of the learning environment, the teachers do not see themselves as the only teacher but recognize the availability and value of including others (counselors, parents, librarians, community persons, retired persons) as teachers in areas of their speciality.

The teaching/learning process becomes a shared responsibility. The teacher plans the learning experience but is not necessarily the imparter of knowledge. No teacher can be expected to be an expert in all areas, and a wise teacher utilizes a variety of resources to accomplish the understandings and skills needed by the students. Students today learn from a variety of sources - television, role models, peers, etc. A skillful manager can capitalize on all available resources. The broader community can become a stimulating classroom.
It takes a very skillful, secure teacher to structure such career-related learning activities always insuring that such activities are based on clear instructional objectives for the students. In order to accomplish this change in the teaching/learning process, teachers must:

- appreciate the value of these types of experiences
- become aware of what resources are available
- have time to plan
- insure that experiences do not take away from content or skill development but enhance and bring purpose to the teaching/learning process.

A strong practical staff development component is necessary to assist teachers in providing variety to the teaching/learning process.

WEAVING/INFUSING/THREADING PROCESS

Persons involved in career education will often refer to the process of weaving, threading or infusion into the curriculum. These terms were initiated to clarify that Career Education, as one of the goals of education, is not separate but infused within the total school program and as such is a thread weaving throughout the entire curriculum. It is not a separate subject or an add-on, but included in all areas to facilitate the relationship between education and work.

As a program implementor, I think of these terms from two different perspectives which answer the inevitable question: "How do we do Career Education in the classroom?"

This question generally comes from two different types of role groups: the program planner and the classroom teacher. Two perspectives, but both equally important to the implementation of Career Education.
Program Planner

The program planner, has the responsibility of keeping in perspective the total school program while planning the infusion of Career concepts within the curriculum. This person bears the accountability for the systematic development of career education along with reading, math, etc. The planner analyze:

- where does this fit in the total curriculum?
- what is a logical scope and sequence of career objectives?
- what should the total career education program K-12 look like?
- how does this fit with what is already in the classroom?
- what kinds of activities should occur in the classroom, in guidance, in vocational programs?
- how does this inter-relate with the other basic goals of education?

Until these questions have been carefully analyzed and a program design developed which includes infusion into the total program, it is very difficult for teachers to implement activities in the classroom.

Weaving or infusing into the total school program means building career concepts K-14 in a consistent and developmental system, within the instructional design of the school district. It is possible to have many isolated career-related activities occurring in classrooms without all this, but a developmental program is necessary to insure accomplishment of student goals by all students, at all grade levels. Reading and math skills are not developed by random experiences nor should preparation for the world of work. If the total concept of career education is to become infused permanently within the school program, it does require a comprehensive systematic plan.

It is the responsibility of the program planner, co-ordinator, to develop this plan with the input from those involved in the instructional delivery system and members of the community. Main components of such a plan should include:
Development of a plan will facilitate concept implementation and provide needed direction for those persons involved in the delivery system. It will provide an overall framework and insure that all outcomes are included in a developmental process and that career education will not overburden the curriculum but take its place as an equally important goal of education among the basic goals as we work towards the development of the total child.

Classroom Teacher

Once an overall plan has been established it becomes easier for the teacher to understand what they are being asked to implement. They no longer need to question:

- Who is going to do this?
  It is a collaborative team effort.

- Where does it fit into what I am teaching?
  It fits where it can illustrate and enhance the meaningfulness of the instructional content.

- How many minutes a day?
  There is not a set time limit. The career concepts fit within the curriculum wherever they apply as part of the sequence of content. Career Education does not have to happen every single day or every minute but only where applicable.

- Do I include information about all jobs?
  It is impossible for every teacher to cover the multitude of occupations available. A program theme structure per grade level and/or subject area often helps to provide a wide exposure to the world of work.
Do I include this in every subject?

Career Education is a thread that weaves through all subject areas. The amount of inclusion in each subject area depends on the applicability to instructional content. A comprehensive plan can insure that career education does not overburden any one subject area.

What do I drop to put this in?

Nothing needs to be dropped. It is not an either/or situation. The teacher simply matches a career outcome or theme with an applicable instructional objective and plans an activity that accomplishes both at the same time. Career education provides the motivation for learning subject content skills.

What exactly is it you want me to do in my classroom?

A teacher who understands the concept of career education and its importance as one of several basic goals of education can infuse career-related student outcomes as part of the teaching/learning process. The process of infusion into the everyday curriculum becomes a planning process involving a few steps.

1. Awareness of the student career outcomes or themes for the grade level or subject area.
2. Awareness of the instructional content and objective for each subject.
3. Matching an instructional objective with a career outcome.
4. Planning an activity that combines the instructional and career objective.
5. Evaluating the activity.

This process is best clarified by some examples typical of grades 3, 8, and 11.
Given a two or three word sentence, the child will orally expand the sentences with words or phrases which tell how, when, where, why.

Grade 8
Given sentences with words and meanings, the child will underline the correct meaning by using context of the sentence.

Career Related Activity
Expanding sentences: The child uses words or phrases how, when, where, why to orally expand two or three word career-related sentences. Eg. Transportation
- The pilot flew.
- The airplane mechanic worked.
- The astronaut blasted off.

Context Clues: Give students a work sheet containing sentences that include a job title with a descriptive phrase of that job. The student will identify the word or words that unlock the meaning of the job. Eg.

1. The CARTOGRAPHER drew the map carefully.

2. Leonard's uncle, an ARCHAEOLOGIST, classified the fossils as coming from the PALEOZOIC ERA.

3. Mary's mother felt that Mary should have her teeth straightened, so she sent her to an ORTHODONTIST.
Grade 11
Given a teacher-prepared list of selected titles of class readings, the student will write one-sentence statements of the main idea of each selection.

Basic Skill - Math
Grade 3
Given the sum and one addend of subtraction facts through 18, the student will give the fact.

Finding Main Idea: Assign students to read magazine articles and/or pamphlets related to lifestyles of the job cluster of his/her choice. After reading, student will write one sentence statements of the main idea of each selection.

Reinforce addition and subtraction facts.

Be a Painter - Paint Your Way Through The House,

Directions:
1. Each child selects a card.
2. First the child must name the tool on the card, if he or she does not know the tool, they lose their turn.
3. Then the child - given the sum and one addend of the subtraction facts must give the fact.
4. If the student gives the correct answer - they move 1 space.
5. The first person to reach the top is the winner.

Game Board:
Grade 8

Add, subtract and multiply using addends involving tenths, hundredths, thousands.  

Decimals:

The payroll check is very important.  

How the payroll is figured is important to the worker and the employer.  

Have students reinforce skills by the following worksheet.

<table>
<thead>
<tr>
<th>Employee</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>Reg. Hr. Rate</th>
<th>Overtime Rate</th>
<th>Total hrs. worked</th>
<th>O.T. Reg. Rate</th>
<th>Total Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>8</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>$2.88</td>
<td>$4.32</td>
<td>39</td>
<td>2</td>
<td>$8.64</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>8</td>
<td>9</td>
<td>8</td>
<td>8</td>
<td>2.96</td>
<td></td>
<td></td>
<td></td>
<td>112.32</td>
</tr>
<tr>
<td>C</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>3.10</td>
<td></td>
<td></td>
<td></td>
<td>120.96</td>
</tr>
<tr>
<td>D</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>2.45</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Grade 11

Given a set of directed rational numbers and a number line, the student will graph on the number line the point corresponding to each rational number.

Graphing Directed Numbers:

Have each student choose a stock from the quotations page of the newspaper. For two weeks, each student will graph the stock price as it goes up and down to illustrate positive and negative numbers. The students will then compute how much "n" shares of stock cost at the beginning price and how much "n" shares of stock sold for at
the last price. Students will then compute if there was a profit or loss.

These examples illustrate a relatively easy process to infuse career concepts as part of the regular curriculum without it becoming an add-on. The instructional skill is the organizing point with the career concept providing the theme or motivation for the activity. The instructional scope and sequence is not destroyed but progresses in its regular developmental pattern. The career concepts sequenced through the grade and subject levels are woven in where they naturally apply. The relationship between education and work becomes a part of the total curriculum without taking away from the other goals of education.

This process does not happen overnight. Teachers need time to be able to understand the process and to prepare materials for infusion into the instructional content.

In order to insure a comprehensive, sequential process a curriculum development effort is necessary. The local coordinator with input from the classroom teachers must analyze the curriculum areas and place the sequence of career outcomes where they apply. The total curriculum must then be studied to insure that any one subject area is not being over saturated, and that all career outcomes are being developed in a systematic way K-12.

While weaving/threading/infusing has been viewed from the role of the program planner and the classroom teacher, it is important to note the interdependence of the two perspectives. Total program planning facilitates individual classroom planning as preparation for the world of work becomes part of the teaching/learning process.
SUGGESTIONS FOR IMPLEMENTATION

The need exists for greater clarity in the process of implementation of career education. Change in education has never been an overnight occurrence. The types of changes suggested in this monograph are comprehensive when viewed from a total program point of view. A great deal of educational planning is needed for the concept to become an on-going part of a school district's instructional program.

It is not prudent to suggest a step-by-step process that will work for every school district. A number of successful demonstration models have been implemented throughout the United States for persons to study and replicate. The career learner outcomes provide a framework for program planning. Each system must assess their own needs, readiness for change, existing school curriculum, and plan accordingly.

Although a variety of implementation models exist, there are some common observations pertinent to each district in terms of:

- readiness of school administrators to allow change to occur.
- readiness of the ability of teachers to make changes in the teaching/learning process.
- readiness of the community for the kinds of changes in the teaching/learning process.

Readiness of School Administrators

School Administrators must have a clear understanding of the career education concept and be committed to concept implementation. Very little lasting change occurs in the educational system without the enthusiastic and continued support of the chief administrator. In order for career education to become a permanent part of the teaching/learning process, administrators must do more than allow it...
to happen. They must provide leadership, reinforcement, and be concerned that it does happen.

Change requires time. It is important that initially long and short range goals be established. Administrators need to analyze:

- where they are.
- where the school district needs to go.
- what is a reasonable amount of time needed to accomplish stated goals.
- what resources will be needed.

Each school system is unique. Readiness and ability to change varies with each different district. Change requires careful planning as relates to local needs.

Career Education requires planning from a total program perspective—Where does the goal fit within the total framework of the system's goals of education.

A district administrator is faced with a variety of pressures from all areas. It is difficult to think in terms of total program, and to allocate resources where needed, rather than most popular in light of such pressures. The administrator holds the responsibility to provide the best instructional program possible for all students. This total program includes all the goals of education, including preparation for the world of work.

Strong commitment and educational leadership is necessary for local administrators to ensure that the concept of Career Education is an interwoven part of the curriculum design of the system, a team effort by all involved in the instructional delivery system; and a real part of the district's philosophy of education.

At the local school level, the building principal becomes a key administrative role. The atmosphere of acceptance and the enthusiasm for concept implementation determines success or failure in the building.

A building principal, while not expected to provide training and support services, must establish high expectations and give positive reinforcement to the school staff.
If the principal views career education as an add-on, a fad, or an intrusion, the implementation process is hampered. Career Education represents a team effort. All members of the team, especially the leader, must be committed to change if the change is to have a lasting effect.

Administrative ability and rapport with staff are necessary ingredients for any educational change. An adept administrator can facilitate the process of implementation in a systematic manner.

All administrators are not ready for change. Education has undergone many changes over the past years. Declining enrollments and lack of funds have caused many persons to be skeptical of change. As school districts wrestle with these crucial problems perhaps it is time for administrators to re-examine their goals and allocate resources accordingly.

It is important to keep in mind the purpose of career education, preparation for work, that includes:

- academic skills
- work habits and values
- knowledge of world of work
- vocational skills
- decision making skills

Schools prepare students for future life. Most persons will agree, when thinking in terms of student needs, it is necessary for change to occur. Administrators in each district will affect whether this change occurs and is a lasting one.

Readiness of Teachers

The teachers ability to blend career education into the teaching/learning process is dependent upon several factors:

- willingness to change
- understanding of the concept of career education
- recognition of the need for career education
- understanding of their role in the team effort
- level of instructional delivery skills as a teacher
- willingness to utilize the community as a part of the teaching/learning process
- strong staff development program

32
In order for career education to occur in the classroom, the teacher must understand what career education is trying to accomplish; must be open to try new things; and must value its development with students. If all of these factors are not present, the classroom door will close, and there will be a void in one part of the students' development.

The above factors are possible if a structured, planned program is developed with input from teachers, counselors, librarians, etc. Half the fear of change is conquered, if the staff knows what is expected; the value of the concept, and what their role is in the implementation process.

A complete, comprehensive change will not occur overnight. Readiness to change is similar to readiness of students to learn. Individual differences exist among instructional staff in their acceptance to change as well as acquiring the skills necessary to implement the concept. Change should be implemented in accordance with the readiness level of the staff.

It has been my experience over the past seven years, that the infusion of career concepts into the teaching/learning process is dependent upon the instructional delivery skills of the staff. Instructional competencies that are necessary for effective teaching are the key to the delivery of career education.

A teacher, who is experiencing classroom management problems, lacks a variety of teaching strategies, or has limited knowledge of subject matter, needs assistance in these areas before the career concepts can be infused into the teaching/learning process. The reinforcement of teaching skills and the review of subject content, enables teachers to grow professionally, as well as infuse the career concepts into the learning process. TIME is needed for staff development in order to facilitate understanding of the concept and to develop needed delivery skills.

Staff development competencies must be prioritized as teacher readiness is carefully assessed. The span of training should be spread throughout the year.
and reinforced constantly. Time for planning, time for developing materials, time for exploring the world of work, and time for trying activities out, is the most valuable staff development for teachers. Most teachers I have worked with are more than willing to infuse career concepts when the anxiety of how and when has been reduced.

Staff development cannot be accomplished in one session. It is better to start slowly with a brief orientation and then add a few practical techniques. Time needs to be allowed for teachers to implement these skills in the classroom; gain some security in implementation; and receive praise as well as reinforcement for their efforts. Too much at one time creates a mental block against implementing anything. A sample list of priorities might include:

- Understanding the concepts of career education
- Knowledge and ability of techniques
  - Bulletin boards
  - Interviewing
  - Interest centers
  - Role playing
  - Discussion
- Knowledge and ability to involve the community
- Curriculum infusion
- Knowledge of co-ordination with other role groups on the team

These items developed gradually over a period of time enable the teacher not to feel swamped, but build security and willingness to include career education as part of the teaching/learning process.

Teachers and instructional staff need to be reinforced for their efforts. Many will feel the world of work is important for students and feel satisfaction in the students success. Others may need encouragement to try. All need a feeling of success and contribution for efforts that are tried.

Some may question, what is in this for the staff besides more work? After talking with teachers I found there are a variety of answers to that question.
I like to try new things.
I appreciate the recognition of my efforts.
I feel this is an important part of a child's life.
It has broadened my awareness of the world of work.
The kids enjoy it.
Nothing, I do it because it is required.

These answers reflect the individual differences among staff. Each staff member is motivated by different reasons. The key is identifying the rewards important to that person and reinforcing their efforts.

Another important aspect in the delivery of career education is community utilization. This is where the real world of work occurs daily. Teachers need to be aware of available resources and how to use them effectively.

Acceptance plays a key role in the use of the community. Teachers need to accept that all learning does not take place in the classroom and out of a book. The community is filled with daily work experiences and what better representative could there be than the worker on the job.

The idea that only teachers can teach needs to be dispelled. Children learn from many different persons in their development - a parent, a neighbor, a teacher, a friend, etc.

Classroom teachers need to accept this not as a limitation of their ability but as valuable enrichment to the learning experiences of their students. Teachers as managers of the learning process, can draw upon a variety of community resources and still insure that instructional objectives are being included. The teaching/learning process becomes a shared responsibility between the school, home and family for the benefit of the student.

Readiness of the Community

The need for a collaborative effort between community, home, family, and the school has been thoroughly discussed in other writings. Career Education does not occur in a vacuum. The concept of career education, its place in the school program and the role of the community at large needs some understanding.
Most surveys indicate that the community and parents feel the schools should do more in the area of preparing students for the world of work. It is vital the community understands that in order to achieve this goal, changes will occur in the teaching/learning process. E.g.

- Classroom experiences will be more activity oriented.
- Classroom activities might be different than when they attended school.
- Some learning experiences will occur outside of the classroom.
- Content for teaching basic skills of reading and math may have a career theme.
- Instructional scope and sequence will be maintained.
- Community persons will be called on as resources.

The community and home must perceive the preparation for work as a shared responsibility among the community, home and school. All of these groups have a role in the preparation of the student for the world of work.

How can the community be involved? Once the community accepts their joint role with the school there are unending opportunities for involvement. Some may include:

- Serving on advisory councils
- Assisting in staff training
- Speakers
- Field trips
- Internships and shadowing
- Advising as to relevance of curriculum
- Materials about the world of work
- Public awareness of career education
- Work experience sites
- Projections on future job needs

These are only a few examples of activities that are occurring in many of the demonstration sites throughout the United States. The possibilities are unending.

The school staff and the community should plan together what kinds of experiences would benefit the students in their area. The community represents the world of work where the students will be functioning whenever they enter the job market. Who better knows the reality of the work world?
School personnel while skillful managers of the instructional content should recognize the leadership of the business, labor, professional community in providing realistic experiences about the world of work.

Community involvement with the school is not a new concept. Many joint activities have been conducted throughout the years in all areas of the curriculum. My suggestion is that those activities which include preparation for the world of work be expanded and available to all students.

The community should not wait to be asked but assume some direct responsibility for initiating joint experiences for the students. This expanded linkage between school and community will serve to strengthen for all students the relationship between education and work.

Another aspect of the community, the home and family, is very much a part of this expanded partnership. Their children are what it is all about. Parents hold a major responsibility in the career development of their children. All want to see their children succeed. Some express this concern in varying ways but the child's success remains the under-thought.

Parents have been involved indirectly in the career development process of their child by the ideas, values and work habits expressed by them at home. Many times parents do not realize the informal ways in which their children form values and attitudes about the world of work.

Several demonstration sites have utilized formal ways to work with parents. Activities in which parents have been involved include:

- resource persons
- volunteers
- assisting in school resource surveys
- field trips
- parent discussion groups
- demonstrations of hobbies
- assisting in school newsletters
- P.T.A. programs
- involvement of retired persons
- advisory committees
- special projects
Many other kinds of activities could be planned. The more the school, community, home and family work together, the easier the transition for a student from school to work.

Each group has something to gain from the partnership. A forum needs to be established in each district whereby the development of such a partnership can be established. The leadership does not always have to come from the school. In fact, if it is truly a partnership, the leadership will change depending on the task to be accomplished.

Career Education is a team effort which involves many role groups within the school, the community, the home and family. This team effort will facilitate the implementation of preparation for work as one of the basic goals of education. The relationship between education and work will be clear to all students.

Summary:

Career Education, as a basic goal of education, is important to a child's total development. It is a part of the total school program and weaves through out the entire curriculum for all students and for all instructional staff.

The lasting effectiveness of career education will be judged by the accomplishment of the stated learner outcomes. Are students, leaving our schools, prepared for the world of work?

Many factors influence the success of this goal; e.g.,

- district philosophy,
- administrative commitment,
- community involvement,
- curriculum development.

While these factors are a necessary ingredient in program success, the key resource person is the TEACHER.

The teacher brings all these factors together in the daily activities of the classroom. While many role groups share in the responsibility, it is the classroom
teacher, as manager who co-ordinates these activities within the teaching/learning process.

Without the interest, understanding and skills of the teacher, preparation for the world of work for all students, will not become a reality.