ABSTRACT
        This paper provides a framework for understanding the
relationship between career education and the English language arts
and suggests resources which describe specific educational
approaches. The major areas which are discussed include career
education, English language arts, the role of language arts in career
education, career development strategies which are appropriate for
various stages of the career development process, careers in language
arts, and the special needs of linguistically diverse students, i.e.,
speakers of non-standard English, students for whom English is a
second language, and language-handicapped students. The paper
attempts to clarify the definition of career education, define the
relationship between career education and the language arts, and
develop strategies for delivering career education at various
educational levels. The paper serves as a resource for teachers of
English and related fields, educational administrators at all levels,
school board members, university trustees, students and their
parents, educational publishers, librarians, the communications
media, government officials, employers, and other persons having an
interest in career education as an aspect of the teaching of English.
(CT)

CAREER EDUCATION AND THE
TEACHING OF ENGLISH

written by

Marjorie Farmer

Philadelphia Public Schools

THE NATIONAL CENTER MISSION STATEMENT

The National Center for Research in Vocational Education's mission is
to increase the ability of diverse agencies, institutions, and organizations
to solve educational problems relating to individual career planning,
preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research

- Developing educational programs and products

- Evaluating individual program needs and outcomes

- Providing information for national planning and policy

- Installing educational programs and products

- Operating information systems and services

- Conducting leadership development and training programs

FUNDING INFORMATION

Disclaimer: This publication was prepared pursuant to a contract with
the National Institute of Education, U.S. Department of
Education. Contractors undertaking such projects under
government sponsorship are encouraged to freely express
their judgment in professional and technical matters.
Points of view or opinions do not, therefore, necessarily
represent official National Institute of Education
position or policy.

Discrimination   Title VI of the Civil Rights Act of 1964 states: "No
Prohibited: person in the United States shall, on the ground of race,
color, or national origin, be excluded from participation
in, be denied the benefits of, or be subjected to
discrimination under any program or activity receiving
federal financial assistance."
Title IX of the Education Amendments of 1972 states: "No
person in the United States shall, on the basis of sex,
be excluded from participation in, be denied the benefits
of, or be subjected to discrimination under any education
program or activity receiving federal assistance." The
ERIC Clearinghouse project, like every program or activity
receiving financial assistance from the U.S. Department of
Education, must comply with these laws.

4

FOREWORD

The Educational Resources Information Center on Adult, Career, and Vocational Education (ERIC/ACVE) is one of sixteen clearing-houses in a nationwide information system that is funded by the National Institute of Education. One of the functions of the Clearinghouse is to interpret the literature that is entered in the ERIC data base. This paper should be of particular interest to teachers of English and related fields and educational administrators.

Robert E. Taylor
Executive Director
The National Center for
 Research in Vocational
 Education

ABSTRACT

This paper provides a framework for understanding the relationship between career education and the English language arts and suggests resources which describe specific practices related to career education in the English language arts. The major areas which are discussed include career education, English language arts, the role of language arts in career education, career development strategies which are appropriate for various stages of the career development process, careers in language arts, and the special needs of linguistically diverse students, i.e., speakers of non-standard English, students for whom English is a second language, and language-handicapped students. The paper attempts to clarify the definition of career education, define the relationship between career education and the language arts, and develop strategies for delivering career education at various educational levels. The paper serves as a resource for teachers of English and related fields, educational administrators at all levels, school board members, university trustees, students and their parents, educational publishers, librarians, the communications media, government officials, employers, and other persons having an interest in career education as an aspect of the teaching of English. (CT)

DESCRIPTORS::*Career Development; *Career Education; *Career Exploration; *Career Awareness; Employment Opportunities; Career Planning; Delivery Systems; *English; English (Second Language); *Language Arts; Language Handicaps; Nonstandard Dialects; Educational Resources; Definitions

CONTENTS

INTRODUCTION

This paper is intended to serve as a resource for teachers of
English and related fields, educational administrators at all
levels, school board members, university trustees, students and
their parents, educational publishers, librarians, the
communication media, government officials, employers, and other
persons having an interest in career education as an aspect of
the teaching of English. Both the teaching of English and the
preparation of young people for useful careers are shared goals
of all these groups, as well as urgent considerations for our
national well-being. It is hoped that this paper will direct
the attention of its readers to the growing numbers of successful
programs, effective curriculum materials, and able practitioners
in this field, thus increasing the understanding of the
relationship between career education and the teaching of English
throughout the educational system.

As career education has developed during the last decade, major
accomplishments of that developmental period were to clarify
the definition of career education, to define the relationship
between career education and the English language arts, and to
develop strategies for delivering career education at various
educational levels. This paper provides a framework for
understanding the relationship between career education and the
English language arts, and suggests resources which describe
specific practices related to career education in the English
language arts. The major areas which are discussed include:
(1) career education; (2) English language arts; (3) the role
of English language arts in career education; (4) career
development strategies which are appropriate for various stages
of the career development process; (5) careers in English
language arts; and (6) the special needs of linguistically
diverse students, i.e., speakers of non-standard English,
students for whom English is a second language, and language

handicapped students. Two publications which resulted from the National Council of Teachers of English's Project on Career Education, directed by Charles Suhor, provided the basis for the paper. These were: Essays on Career Education and English, K-12. (Kaiser, 1980) and Career Education and English, K-12: Ideas for Teaching (Kilby, 1980a). In addition, materials identified through a search of the Educational Resources Information Center (ERIC) system have been incorporated into this paper and the resource list found at the end of the paper.

CAREER EDUCATION

Career education is an aspect of the liberal arts, providing the means by which a student becomes both free to choose and enabled to develop a fulfilling way of life thus making a worthy contribution to the community. As officially defined by Kenneth Hoyt, director of the Office of Career Education in the U.S. Department of Education, it is "an effort aimed at refocusing American education and the action 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, and satisfying part of his or her way of living" (Hoyt, 1979, p. 5). Understanding the expanded definition of work is important in career education programming. Work is defined by Hoyt as "conscious effort, other than activities whose primary purpose is either coping or relaxation, aimed at producing benefit for oneself and/or for oneself and others." Thus, work can include both paid and unpaid activities.

Hansen (1977), in a paper prepared for the National Advisory Council for Career Education, provided this comprehensive definition of career education:

> Career education is a person-centered developmental, deliberate and collaborative effort by educators, parents, and business-industry-labor-government personnel to systematically promote the career development of all persons by creating experiences to help them learn academic, vocational, and basic skills, achieve a sense of agency in making informed career decisions, and master the developmental tasks facing them at various life stages through curriculum, counseling and community (p. 39).

The Career Education Incentive Act (1977) provided for the implementation of career education at the elementary and secondary levels and for the demonstration of the efficacy of career education at the postsecondary level. In this act

2

(P.L. 95-207), career education was defined as:

> ...the totality of experiences which are designed
> to be free of bias and stereotyping (including
> bias or stereotyping on account of race, sex, age,
> economic status, or handicap) through which one
> learns about, and prepares to engage in, work as a
> part of his or her way of living, and through which
> he or she relates work values to other life roles
> and choices (such as family life).

As indicated by these definitions, career education has evolved
to include an expanded definition of work, and to unify academic,
vocational, and basic skills education through the theme of
lifelong career development.

The content of the career education curriculum relates to the
broad area of career development. Career development is a
major element of the total human development process. It is a
lifelong process beginning early in life and continuing through
adulthood. Hansen (1977) has described career development as:

> ...a continuous, life-long person-centered process
> of developmental experiences focused on seeking,
> obtaining and processing information about self,
> occupational-educational alternatives, life style
> and role options, and socioeconomic and labor market
> trends, and engaging in purposeful planning in order
> to make reasoned decisions about work and its relation
> to other life roles with benefit to self and society
> (p. 39).

Career development "involves all of the experiences from which
we form ideas, attitudes, and values about ourselves and the
world of work, and make career choices" (Kilby, 1980a), p. xiii).
Career development goals cluster around three themes that
include self awareness (an understanding of personal values,
interests, abilities, self-perceptions, and skills), career
awareness (an understanding of the occupational world including
occupational clusters, opportunities, and requirements), and
career decision making (including an understanding of the
career decision-making process and application of that process
to career-related decisions).

The nature of the career development process has been clarified
through career development theories and the subsequent conduct
of research to test those theories. This work has provided
information about the career development stages that occur
throughout the lifetime of an individual. Kilby (1980a)

3

10

summarizes these stages: "In the earliest stage of career
awareness, approximately from kindergarten through grade six,
individuals first become aware of themselves and the environment.
In the intermediate stage, in grades seven through nine,
youngsters explore in greater depth the careers that are
available and they begin to look carefully at their career-
related interests, goals, and abilities. In the career
preparation stage, grades ten through twelve, individuals
actually begin to equip themselves for specific careers" (p.xiii).
The purpose of career education is to assure for every student
both the breadth and the specificity of preparation that will
promote full use of one's gifts to shape a good life for
oneself and to affect positively the lives of others.

ENGLISH LANGUAGE ARTS

English teaching means the comprehensive English language arts
curriculum at all levels of education. Its elements include
the skills of reading and of oral and written communication;
the study of the language--its history, grammar, dialects, and
levels of usage; the arts of literature and the theatre; and
the uses of mass media.

English teachers have developed the following statement
concerning the relationship between career education and the
teaching of English:

> A primary concern is to give learners...an opportunity
> to achieve language communication competencies that
> will equip them for the responsibilities of adulthood.
> A major responsibility of the adult is to do work that
> yields both personal fulfillment and service to the
> common good. Further, the English program seeks to
> prepare learners to participate creatively in the
> life of the world community. These are career
> purposes, and they are the purposes of teaching English
> (Davidson, et al., 1980, pp. 7-8).

These purposes are expressed in English teaching chiefly
through two approaches: (1) infusion of career education
concepts and practices in classroom work and indpendent
activities and (2) collaboration with the business community
as well as parents and other elements of the school community.

Collaboration as a strategy for the delivery of career education
is described by Hoyt (1975):

> Further, we seek collaboration in meeting these
> student [career development] needs among the

5

12

formal educational system, the business-labor-
industry-professional-government community, and
the home and family structure (p. 204).

Kilby (1980c) suggests collaboration is necessary since "the
career education concept is not something educational institutions
can do by themselves" (p. 113). Collaboration involves shared
responsibility for career education program planning and
delivery. "True collaboration in career education exists
when all those who have major influence on students' career
development share equally the responsibility for guiding
students" (Kilby, 1980c, p. 113).

The development of career education goals and of curriculum and
teaching activities to achieve these goals needs to consider
both the three content areas of career development (self-
awareness, career awareness, and career decision-making) and
the age-related career education levels (career awareness,
grades K-6; career exploration, grades 7-9; and career
preparation, grades 10-12). Davidson, et al. (1980) proposes
the following career education goals which relate to English
language arts.

Goal I: Developing Communication Skills Related to Careers

    Objective 1: Considering occupations related to English
    Objective 2: Recognizing many different kinds of written
                  communication
    Objective 3: Using language, spoken and written, in
                  different ways
    Objective 4: Experiencing a variety of roles through
                  literature
    Objective 5: Examining the uses of English in the
                  communications media

Goal II: Self-Understanding, Values, Definitions

    Objective 1: Developing a systematic method of clarifying
                  values
    Objective 2: Considering values, abilities, interests,
                  aptitudes, and attitudes in relation to
                  occupations
    Objective 3: Understanding the personal significance of
                  work and careers
    Objective 4: Considering the relationships between nonprint
                  media and personal growth, occupational
                  satisfaction and recreation
    Objective 5: Examining values that produce other values

6

13

Goal III: Developing Decision-Making Skills

> Objective 1:   Making and analyzing career decisions
> Objective 2:   Gathering information on career choices
> Objective 3:   Using knowledge of oneself and of careers
>   to make tentative career choices(pp. 12-17).

Kilby (1980b) suggests that career infusion is a strategy
through which "classroom teachers and other school personnel
weave career development goals and activities into the regular
academic curriculum and school program" (p. 4). She describes
collaboration as the process of "educators, parents, and
members of the community designing learning materials and
experiences to illustrate to students the close relationships
between learning, or career preparation." An approach for
analyzing both the goals of career education and the goals of
English language arts to identify those career education goals
which are most nearly congruent with the English language arts
curriculum has been suggested by Suhor (1980). He suggests
that "certain goals of education and subject area instruction
will be viewed as congruent; others as overlapping; still
others as distinctive"(p. 24). With congruent goals, the
career education and English language arts goals match exactly.
With overlapping goals, key areas are similar to other aspects
of both the career education goals and the English language arts
goals containing some aspects that are not shared. Finally,
"some language arts goals are their own excuse for being--that
is, they are distinctive, having no apparent career relevance
except for the student who might later become a language arts
specialist..." (p. 27).

Suhor's notion of congruence provides a basis for both teachers
and curriculum developers. He suggests that this goal-analysis
approach can support the career infusion process. This process
moves away from the notion that all teaching of English is
directly relevant to the careers of students and from the
notion that infusion is achieved by the development of a few
career-oriented units.

THE ROLE OF ENGLISH LANGUAGE ARTS IN CAREER DEVELOPMENT

In the resolution passed at its 1979 convention, the National
Council of Teachers of English stated that "the relationship
between English and career education...is based on the English
language arts teacher's expanded role in each student's career
development." That role includes helping each student achieve
at least three basic career competencies:

7

The communication, understanding and skills necessary
to become employable, to continue education throughout
their lifetimes, and to pursue developing vocational
and avocational interests; increased self-awareness
and direction, expanded career awareness and aspirations,
and appropriate attitudes about the personal and social
significance of work and careers as a result of clarifying
their values through literature and the other disciplines
of English; and decision-making skills necessary for
future long-range planning (Davidson et al., 1980, p.
12).

Communication competencies, self-understanding, and decision-
making skills, as goals for the teaching of English, help the
teacher focus and direct instruction, and help students find
meaning and purpose in their study. Language development,
like career development, is an aspect of the whole process of
human growth and development, that begins in infancy and
extends throughout maturity. Two basic human needs are served
through a career education approach to the teaching of language
arts: the need to communicate with others (verbally and
nonverbally, through print, sound or visual representation or
enactment), and the need to work (to make, express, achieve,
to give meaning, purpose, and order to one's life).

CARFER AWARENESS (GRADES K-6)

The career development process actually begins prior to school
entry as the child engages in play activities, interacts with
family members and other children, and begins to develop
distinctive attitudes, values, and interests. During this
awareness phase children are forming early attitudes about
work roles and are gaining increased exposure to a variety
of career areas. The purpose of career education during the
early years is to provide learning activities that expose
children to a variety of adult work roles, that help them
understand the meaning of work, and that begin to clarify the
relationship between education and life roles.

The process of career education begins, for the pre-school
child, in the business of play, as the child's energies are
focused on the tasks of imitating adults and playmates, developing
relationships, making and breaking things, drawing, talking,
listening, and role playing. Children's games, toys, and stories
all serve basic human needs--to communicate, to work, and to
use one's talents. No one who has observed a child going
about the important business of play can seriously question
the primacy of work in human development. And no one who has

8

found, as an adult, employment at tasks that are personally rewarding and pleasurable should doubt seriously that this is what healthy career development should be. The aim of good career education is to help each child discover or invent work that provides both self-fulfillment and service to the well being of the community.

Career development, then, "begins as soon as children begin to observe the lives of their family members and the people closest to them. In their earliest interactions with others, children begin to develop attitudes, values, and ideas about themsel es and the world around them, which ultimately will influe e their way of life choices and decisions, especially those regarding their career choices" (Kilby, 1980a, p. 3). This career development process is nurtured by parents, siblings, playmates, and teachers.

Children's literature is a powerful resource for supporting career development. There are many good writers who, in various ways, "present the theme that good work is a source of profound satisfaction to human beings" (Russell, 1980, p. 148). Russell has supplied lists of carefully selected children's books that give children the opportunity to participate imaginatively in many kinds of work experiences: Farm Work for Family Survival, Caring for other Family Members, Caring for Pets and Other Animals, Aiding Friends and Other Non-Family Persons, Work for the Community, Creating Dramatic Performances, Career Goals, and Problems during Careers. The headings under titles as grouped in Russell's study illustrate the connections that should be made between the real life of the child who is hearing or reading the story and the lives of fictional characters. Career awareness depends on this understanding of work as useful, enjoyable, important, and possible for each person.

In addition to literature, the oral communication experiences of the early school years offer many opportunities for career development. The learner's success throughout the school career and in adult employment will depend, to a great extent, on the ability to communicate effectively and pleasantly with other persons. "Most productive activities involve communication among human beings" (Davidson, et al., 1980, p. 10). Teachers will find ways of using many everyday activities, such as interviewing parents, community members, and school people about their work to help students develop the oral communication skills they need. Classroom conversations with the teacher or classmates is an essential element in this career-oriented teaching, not simply a way of filling classtime, or facilitating the management of other classroom activities. When each learner is given the privilege of carrying out a responsible classroom

9

role, oral communication becomes a natural and integral part of being a hall monitor, a keeper of the booklist, a leader of the class team--a worker in the classroom community.

The renewed emphasis brought to the teaching of oral communication by the Basic Skills Act of 1978 is a great asset to this aspect of career education. The Speech Communication Association has published <u>Guidelines for Minimal Competencies in Speaking and Listening for High School Graduates</u> (1979) which provides a useful summary reference for teachers from grades kindergarten through twelfth grade. In addition, the <u>Standards for Effective Oral Communication Programs</u> published by the American Speech-Language-Hearing Association and the Speech Communication Association (1979) states as a central premise that adequate oral communication frequently determines an individual's educational, social, and vocational success. The <u>Standards</u> provide a useful framework for developing oral communication programs that will give students these essential competencies.

Also, writing begins to play a key role in career development during this period. A primary purpose for the teaching of writing has always been to give students control of this powerful tool for self-discovery and for analysis of their own growing capabilities in relation to possible life-roles. Keeping a personal journal, as well as other forms of creative and expressive writing, are means of achieving these objectives. Writing is an important way of learning and using career-related information. Students can write to appropriate sources for career information; they can gather and organize data about the careers of famous persons or characters in literature, as well as persons present in their everyday lives.

The National Council of Teachers of English has published <u>Standards for Basic Skills Writing Programs</u> (1979) that emphasize these functions of writing: self-discovery, developing relationships between ourselves and others, and shaping particular messages appropriate to our purposes in communicating with others. Here, as in the <u>Oral Communication Standards</u>, teachers have stressed the connection between teaching the skills of communicating and using these skills for life-purposes. This is the career connection.

CAREER EXPLORATION (GRADES 7-9)

During the late elementary years, students are beginning to focus on specific careers or career clusters that seem congenial to their talents, experiences, and interests. They have typically begun to develop an increasingly realistic

10

assessment of their own strengths, their preferences, and their personal assets and deficits. As Kilby (1980a) indicates:

> During this stage of career development, students
> begin to think about careers for themselves, and they
> have a strong interest in reading about specific
> careers, in talking to people about their jobs,
> and in imagining themselves doing certain kinds of
> work (p. 17).

Throughout the middle school/junior high years, students need opportunities to explore career options more systematically, to continue to increase their understanding of the relationship between school and work, and to develop a beginning understanding of the career decision-making process and their responsibility in this process. Career focused education activities during these years need to be focused on expanding students' knowledge of career options and on stimulating their interest and involvement in the career planning process.

English teachers who see their work as promoting self-actualization--helping individuals to achieve fulfillment of the potential within themselves--will provide many experiences to support this career exploration process. Many opportunities need to be provided for each student to build secure self-esteem through responsible participation in the business of the class, as well as in independent and creative work and study.

In this developmental period, opportunities can be provided for children to analyze and improve their communication skills, as they use these skills to learn about the fifteen career clusters: agribusiness/natural resources, business, communication, consumer/homemaking education, construction, environment, fine arts/humanities, health, hospitality/recreation, manufacturing, marine service, marketing/distribution, personal services, public service, and transportation. As students talk, read, and write about these clusters and the range of specific jobs included in each, they will experience the underlying theme of career education--perceiving relationships, interdependence among human activities and the range of potential within themselves.

Lemke (1980) reminds teachers that many young people have limited contact with the careers of their parents, knowing only that the parent goes down to the plant, goes to the office, or punches a clock. Far too many students see their parents unemployed, and have, therefore, a blighted view of the world of work in relation to their own lives. English teachers, Lemke believes, should see in this situation an opportunity to

11

make their teaching an exciting, purposeful, and deeply valued element in their students' development. Literature, for example, opens a door on the career experiences of others in many times, many places, and working with many different sets of talents, opportunities, and limitations. Literature provides an imaginative expansion of the range of options open to each reader. Lemke proposes also the use of creative drama to "dramatically experience human relationships--power struggles--between workers in society" (p. 40), as well as more specifically job-oriented tasks--interviewing workers in various career clusters, writing business letters, and observing letter writers at work. The balance between the directly practical and the broadly humanistic aspects of the English program are to be carefully maintained.

Career Education and English (K-12): Ideas for Teaching (Kilby, 1980a) suggests a variety of teaching activities for use during the middle school/junior high years. A sample of these activities includes using communication skills in work similation situations, building a personal career ladder, exploring occupational stereotypes, learning methods for researching occupations, and providing mini-internships for students in the community.

CAREER PREPARATION (GRADES 10-12)

In this period, as students are approaching major career decisions, the English program should foster continued self-analysis, goal-setting, and decision making, in addition to the practical skills of initial job-seeking and plans for further career preparation in vocational-technical schools or college. Kilby (1980a), again provides clarification of this career development stage:

> At the high school stage of career development, students have acquired a basic awareness of careers and of themselves, and they are beginning the process of preparing for one or more careers in which they have interest and ability or talent. They begin to set specific goals and analyze the decisions they must make to achieve these goals (p. 29).

Career education at this level has the dual purpose of helping students prepare to make plans of how they will implement career choices necessitated by their exit from the K-12 educational system and of the need to understand the tentativeness of the career plans that will be modified and expanded throughout their life time.

12

Increased self-understanding is an important prerequisite for career decision making. Useful sample exercises designed to facilitate the development of self-understanding in relation to career selection are outlined in Davidson et al. (1980), Kilby (1980a), Roberts (1980), and Kaiser (1980). In these activities, students are asked to use their language/thinking skills and their experiences with literature in the development of personal values and in the decisions they will make about careers. For example, students might be asked to describe their own career goals and their plans for reaching these goals, and to consider the relationship between career choices and their own future life styles. Activities of this kind require students to practice a combination of introspective reflection, research, and observation. It makes both writing practice and oral communication significant in personal growth as well as in skill development.

Literature continues to be a rich resource for teachers in career education at the high school level. Kilby (1980a, pp. 38-40) supplies a list of short stories, poems, and novels that feature workers in a variety of professions, along with activities that will help students use the material for their own development. Through the use of literature, students can use poems, short stories, and novels to analyze a particular profession including the characteristics of individuals in the profession and its impact on life style.

Similar activities and experiences are suggested by Kaiser, who offers recommendations for the classroom use of popular young adult fiction as an element in shaping students' career choices. The kind of career knowledge students gain from literature, Kaiser points out, is "significant to all students, who must consider themselves as human beings, whether their career expectations include being a doctor, an assembly-line worker, or an insurance salesman' (p. 106).

To enhance the effectiveness of reading instruction for career preparation, Levin (1980) lists eleven ways of connecting content area reading to career interests. She states that:

> Students must be made aware that reading plays a
> vital role in enhancing or impeding their future
> plans for immediate or ultimate job entry...
> (p. 32).

Four major areas of basic reading and study skills that expand a student's range of career choices are word-recognition skills, word-meaning skills, comprehension skills and study skills.

Career preparation in the high school English classroom includes

13

many directly employment-related activities. Studying the job market, through newspapers and trade/professional journals, as well as through visits, mini-internships, shadowing workers, and interviews, preparing resumes and portfolios of work and interests; filling in sample job applications, and participating in simulated job interviews are among the teaching practices recommended and identified as effective and highly motivating for students. These activities require direct application of reading, organizing, evaluating, and oral communication skills, and they draw upon the experiences of self-study and analysis of talents and abilities students have developed in their journals and other writing.

As students complete the career preparation period, however, it is important to consider the humane as well as the practical aspect of English programs. Davidson et al. (1980) identified affability as one of the qualities the English classroom can promote and encourage for career success. "Social graces still count a good deal in a job interview," Shenk (1980, p. 40) quotes a teacher as saying in evaluating a career education activity for her students. Davis and Nall (1980) conclude, similarly, that "most work is not only, nor even predominantly, task dependent. It is relationship dependent" (p. 58).

Communication has been called the essence of courtesy, depending on each person's caring that the other should understand what is being communicated. It is based on mutual respect and on a sense that what is to be communicated is worthy of attention. The English classroom can make a significant contribution to the development of self-confidence, friendliness, interest in others, and facility in expressing ideas and feelings that make the student a pleasant addition to the workplace.

The traditional teacher of the English language and its literature has another significant contribution to make to the career education of young people. Albert Einstein once said that "imagination is more important than knowledge." Imagination is the intellectual capacity, preserved from childhood's insights and nurtured through literature and drama, that allows one to invent, to create, to expand reality beyond the immediate, to perceive one's own best possibilities and move to achieve them.

Students need to "perceive themselves and society as being in continuous process" (Farrell, 1980, p. 126) with their lives and experiences being interdependent with those of others in other places, other times. He suggests several ways that students can become empathically involved in the working decisions made by persons in various occupations, and ways of

14

21

imagining participation in their own futures. Students might be asked, he suggests, to role play the decision-making process of a teacher who discovers a favorite student cheating on a test. Or they might be asked to write out the response they would give, at age seventy-five, to grandchildren asking about highlights of their lives.

The teacher of English language arts has countless opportunities, throughout the twelve years of elementary and secondary education, to promote each student's preparation for a productive and satisfying career. Only a few of these techniques and activities have been specifically identified here; many more are described in the resources listed later in this paper. Some of these techniques will suggest themselves to teachers who are teaching English with students' career development in mind. Such teaching is characterized by a high degree of collaboration with other faculty members; with parents and community members; with business, the professions, and industry; and with students in the academic workplace. Students in such classrooms are likely to be successful in mastering communication skills, because these skills are taught not as isolated and frequently meaningless drills, but as ways of learning and expressing important ideas and doing things that are personally significant to the learner. The next connection that must be made by each student, well or ill prepared, is career entry.

CAREER ENTRY (POSTSECONDARY AND ADULTHOOD)

College, university, vocational, technical, professional, and adult and continuing education are all a continuation of the career preparation stage with gradual emergence into the career entry stage. During these educational experiences, students are clarifying and reality-testing earlier career decisions, expanding their repertoire of career-related skills, and developing behavior and attitudes needed for career entry.

Language arts experiences to which students have been exposed previously during the K-12 school experience, and to which they are exposed subsequently during their postsecondary and adult/continuing education experiences can contribute to their success during this career entry stage. The English language arts competencies support the following elements of the career entry process: (1) decision making, first focusing on a career cluster, then narrowing the field with reference both to the job market and to one's own interests and abilities; (2) locating an appropriate work opportunity; (3) documenting one's qualifications for the job by developing a resume and completing an application form; (4) completing examinations and interviews; (5) surviving the induction or probationary

15

22

period on the job; and (6) coping with and adjusting to the work
setting.

Career entry may also mean creating a work opportunity, by
perceiving and evaluating a need in the community for a
service one would become able to provide. Especially in
times of economic change and recession, students need to
know there will not always be an employer, in the traditional
sense at least, but there will always be work that needs to
be done. The English program can help students develop
capacities for self-appraisal, for surveying community resources
to gain imaginative insight as well as logical analysis of
possible responses to economic and social needs, and for
communicating effectively with others.

For decision making, making choices among career clusters and
among specific jobs within a cluster, the student draws on
lessons and experiences in using research techniques for studying
the field--interviews, observation, mini-internships, reading,
discussion; and on all the self-analysis, introspection,
assessment, and projection developed through writing and other
language activities.

Students need the practical skills of studying the economy
and business in newspapers and other publications, and making
practical decisions about where to go and how to begin the
active search for employment. Preparing a resume and filling
out a job application are practical uses of writing skills,
drawing on personal journals and other self-evaluative writing.
Test-taking skills cannot be taken for granted; they can and
should be directly taught. The job interview is a dramatic
scene, one which students enjoy enacting. The power of
authoritative role playing to prepare students for the real
test has been demonstrated over and over in secondary
English classrooms.

Attention needs to be given to the last, and in many ways the
most, critical element in career entry: surviving the
induction period. The internship programs provide the
opportunity for students to experience this transition from
applicant to employee. The English teacher can help again
with establishing connections. The habits of sensitive
communication--really listening, attentively and courteously,
to others, and speaking with appropriately assertive or responsive
clarity, as well as reading and following directions, studying
and evaluating relationships among people and among groups--
all of these and related communication skills are important
resources for the employee on the job.

Career education in English continues throughout the worker's

23

life. Throughout adulthood, individuals will confront a
variety of career development needs such as career maintenance,
career advancement, career reentry, and retirement. Through
both formal and informal learning situations, adults need
English language arts activities to help them develop, improve,
and expand English language arts competencies related to these
adult career development needs. Farrell (1980) suggests that
learning opportunities will expand to include:

>self-determined programs of home reading;
>extension courses; universities without
>walls; nonresidential colleges; diverse
>late afternoon and evening programs;
>videotape and sound cassettes for home
>viewing and listening; programs on the
>computer; and courses sponsored by business
>and industry... (p. 127).

PREPARATION FOR CAREERS IN ENGLISH/COMMUNICATION

Earlier sections of this paper have focused on generic career education goals that most appropriately can be implemented through the English language arts curriculum. For those students who select career areas that are directly related to English language arts, an expanded range of specific English language arts competencies becomes important. These are the distinctive goals that Suhor (1980) describes as having "no apparent career education relevance except for the student who might later become a language arts specialist--an English teacher, editor, lexicographer, or poet, for example" (p. 27).

This language arts occupational cluster includes a substantial and expanding range of careers that make special demands on the worker's interests, talents, and skills in using language and literature to express, and to communicate ideas and feelings. Students who select English (communication) as a major concentration in their postsecondary education have traditionally been oriented mainly toward teaching English in secondary schools and colleges. Teaching English is still a major field of interest, though teachers may find themselves working in a number of related subject areas, and in a variety of nontraditional situations, and serving a nontraditional clientele. Their concentration may shift to a focus on speech-communication, reading, elementary or early childhood education, communication arts, journalism, or teaching English as a second language. They may teach language to handicapped learners, (the aphasic, the dyslexic, or the blind), work in adult basic education in lifelong learning programs; teach in various kinds of institutions--correction, geriactic, and mental, for example; or work in the fast growing field of corporate communications. Students' love of books may lead them, instead, into writing, editing, printing, publishing, and other journalistic

18

ventures. The burgeoning field of libraries and information sciences needs students with language arts competencies in an increasing range of roles and assignments. Society's need to know, served by its need to manage and disseminate information in useful forms, has opened a vast and growing field of creative employment.

The English/communication occupational cluster contains a variety of specific occupations. Some of these such as English teacher, school librarian, and television announcer may be highly visible to students. Others such as teaching English to special populations, adult education, and occupations in corporate communications may be less obvious. Career education experiences in the English language arts curriculum can help students become aware of and explore these English/ communication skills occupations. Possible activities include writing, editing, and publishing newspapers, books, news broadcasts, and learning materials; studying newspaper help wanted advertisements to identify new and emerging occupations; and having people in language arts occupations meet with students through visiting classes or through field trips.

Because of the expanding and changing nature of occupations that require strong English language arts skills, it is important for language arts teachers to increase their own awareness of these occupational areas. This can be achieved through both preservice and inservice educational experiences. The Conference on English Education has established a Commission on Preparing and Retraining Teachers of English Language Arts to work with new clients. That commission reported (Hipple & Steiner, 1980) that it has identified over thirty new clients in the United States and in English-speaking countries around the world, as well as a wide range of related programs for which the person trained in the English language arts is well qualified. Another recent writer on English teacher preparation (Diskin, 1977) reports on her success in encouraging teacher candidates to see themselves as lifelong pupils, seeing their careers as evolving in response both to personal needs and growth as well as to the changing needs and opportunities in the community.

19

LINGUISTIC DIVERSITY AND CAREER EDUCATION

Of special importance to career education programs are those
individuals whose English language arts competencies act as
a barrier to employment opportunities. The linguistically
diverse include three groups of students: (1) those who
speak a nonstandard variety of American English; (2) those
whose first language is not English; and (3) those who are
handicapped in the learning and use of language.

Many business leaders say that the single most useful thing
English teachers could do to improve the entry level employability
and the overall career potential of members of these groups
would be to teach them to speak clearly and to communicate
directly in the employment interview. The work of the Speech
Communication Association, Guidelines for Minimal Competencies
in Speaking and Listening for High School Graduates (1979),
is the most useful summary available for teachers in this
area. Basic skills legislation, which has funded new programs,
has stimulated the development of instructional procedures to
support basic English language skills. The work of adult
educators in the area of basic adult education has resulted in
the development of basic competencies and instructional
strategies related to these competencies.

The work of the National Assessment of Educational Progress
program has assessed current levels of achievement of four age
groups (nine-year olds, thirteen-year olds, seventeen-year
olds, and adults). This program has identified the following
communication skills related to career development (National
Assessment of Educational Progress, 1977, p. 6):

    A. Recognize communication skills needed to become
        successful in careers

20

B.   Listen to and understand spoken and visual instructions, directions, and information
C.   Read and follow written instructions and directions
D.   Read and understand pictorial, graphic, and symbolic information
E.   Give directions, explain, describe, and demonstrate clearly
F.   Give organized and informative oral presentations
G.   Write organized, legible, and articulate reports and summaries
H.   Prepare concise letters, messages, "want ads," and telegrams

The result of a nationwide assessment of all four age groups shows differences in performance on these objectives related to region of the country, socioeconomic status, and race.

In planning career education experiences to help these special groups develop basic competencies in occupational-related communication skills three major considerations are important. First, alternative curriculum materials and instructional techniques which are demonstrated to be effective with these groups need to be developed and implemented. Shaughnessy (1977) reports on a program of this type designed to teach writing skills to special admission students at CUNY in New York. The Center for Applied Linguistics published Dialects in Educational Equity in 1980, a series of thoughtful papers on the key issues surrounding dialect difference and equal educational opportunity.

Another major consideration related to teaching language arts to special groups is the need to maintain respect for the diversity that they represent. Each of these groups has unique attributes that can provide a contribution to the enrichment of the educational and occupational situation. Without an understanding, however, of the nature of dialect difference, the relationships of language to culture, to self-concept, and to intellectual development, many traditionally educated teachers of English language arts are attempting to correct students' speech rather than expand their linguistic range. What often happens is that speakers of certain nonmainstream dialects are discouraged from participation in a rich variety of language communication activities that would open up for them access to their own full language and career potential. Neither adequate education nor fulfilling careers are available to students whose language has been treated as a barrier to learning.

Finally, it is important to help students understand their rights under new legislative and policy mandates, and to help

teachers and employers understand their vital role in reducing barriers to employment. Through training programs, special materials and redesign of the work situation, competencies can be strengthened. Students need to understand their legal rights in employment situations including a knowledge of the types of questions that can legally be asked in employment interviews and due process procedures, which are available to them if they suspect that employment discrimination has occurred.

IMPLICATIONS AND SUMMARY

This paper has reviewed several issues related to career education and the teaching of English language arts. The major implications of this discussion are as follow:

1. Career development is a lifelong process of growth that begins in early childhood and extends throughout adulthood. This means that individuals need help in developing career-related English language arts skills throughout the life span.

2. English language arts skills are necessary for career success. These include not only basic skills (writing, reading, oral communication, and study skills) but also higher level skills (decision-making, interpersonal communication, research, and reference skills).

3. The development of career education in the language arts program involves the use of two key strategies, infusion and collaboration. Infusion of the career education concept into the English language arts curriculum needs to be preceded by an analysis of the similarities and differences between career education and language arts goals to identify congruent and overlapping goals that will provide the basis for curriculum development. Collaboration involves the process of English language arts teachers working cooperatively with teachers in other curriculum areas, parents, business and industry, and the community to develop career education programs.

4. English language arts career education activities can support the development of career-related

23

3ₒ

competencies at all educational levels. Career
development theory and research indicate several
stages of career development. In designing curriculum
and collaboration activities, it is important to
consider the needs of students at these various stages.
Career awareness (grades K-6) is a period when children
need to be exposed to a variety of career areas, to
begin to develop an understanding of the meaning of work,
and to develop an initial understanding of the
relationship between education and life roles. During
the career exploration period (grades 7-9), students
need to explore more systematically career options,
to continue to increase their understanding of the
relationship between school and work, and to develop
a beginning understanding of the career decision-
making process and their responsibility in this process.
During the career preparation period (grades 10-12),
students are approaching major career decisions. At
this time they need help in career planning activities
including self-analysis, goal-setting, and decision-
making, in addition to the practical skills of initial
job-seeking and developing plans for further career
preparation in technical schools or colleges. Career
entry and progression are the career development needs
of postsecondary students and adults. Career entry
involves the need to clarify and reality test earlier
career decisions, to expand one's repertoire of
career-related skills, and to develop the behaviors
and attitudes needed for career entry. Career
progression involves the process of maintaining one's
career throughout the lifetime. This involves the
need to develop English language arts competencies that
will support career maintenance, career advancement,
career reentry, and/or retirement.

5. There is a large cluster of occupations related to
    the language arts area. One goal of language arts
    career education programs is to help students
    explore these occupations. Of particular interest
    are emerging occupations related to the language
    arts areas such as information science and corporate
    communication. English language arts teachers need
    to be aware of these occupational areas and design
    learning experiences to help their students study
    these occupations and develop the unique language
    arts competencies needed to enter these occupations.

6. Three special groups, speakers of a nonstandard
    variety of American English, those whose first

24

31

language is not English and those who are handicapped
in the learning and use of language have special
career education needs. When designing programs for
these students, it is important to develop special
learning activities to support English language
skill development for these students, to appreciate
and use the unique contributions that the diversity
of these groups represents in educational and occupational
settings, and to help students understand their legal
rights to equal employment opportunities.

Throughout the decade of the seventies the concept of career
education in relation to the teaching of English language
arts has been clarified and major efforts have been devoted
to the development of career education curricula for use in
teaching English language arts at all educational levels. The
resource section of this paper highlights these key developments.
Career education is a theme that can be used to reconcile
traditionally divergent areas such as liberal arts, vocational
preparation, and basic skills training. Davidson, et al., 1980
have clearly summarized this notion in the following quote:

While the teaching of English undergoes continual
redefinition, its inherent purpose is steadfast:
to give students the opportunity to achieve communication
competencies that will serve them as adults in seeking
personal fulfillment, in giving service to the common
good, and in participating creatively and effectively
in the life of the community. Career education,
broadly defined, can help us revitalize the content
and the methodology of the school English program
(p. 19).

APPENDIX: RESOLUTION ON ENGLISH AND CAREER EDUCATION
NATIONAL COUNCIL OF TEACHERS OF ENGLISH,
NOVEMBER, 1979

The English language arts teacher strongly influences students'
career awareness, exploration, and preparation. Because the
goals of language arts instruction are both practical and
broadly humanistic, there is an inherent relationship between
those goals and the development of values and competencies
needed in the world of work. The National Council of Teachers
of English (NCTE) Executive Committee, recognizing the
potential for productive infusion of career concerns in English
language arts programs, endorsed the federally-funded NCTE
Project on Career Education and English in 1978-1979.

NCTE has warned against narrowly utilitarian, vocational views
of English programs and has rejected "tracking" that masquerades
as an attempt to serve the individual student's interests or
abilities. The relationship between English and career
education, properly understood, is based on the English language
arts teacher's essential role in each student's career development.
The goal of career education is to focus more clearly on those
relationships, making career-related aspects of the English
language arts programs more explicit to teachers and students,
and integrating career education into English instruction more
naturally and effectively.

RESOLUTION

RESOLVED, that NCTE recognize the responsibility of English teachers to integrate, wherever appropriate, career education into English instruction and to collaborate with other professionals, parents, community members, business, and industry in developing students' sense of career potential.

RESOLVED, that NCTE encourage individual schools and school districts to create curricula and program proposals that make clear the valid connections between the goals of language arts instruction and the goals of career education.

RESOLVED, that NCTE communicate to employers and to the public the ways in which the broad humanistic goals of English instruction can contribute to the growth and competence of individuals in all fields of work.

RESOLVED, that NCTE urge producers of instructional materials to integrate career-oriented concerns with language arts materials at all levels.

RESOLVED, that NCTE reaffirm its commitment to education for all by resisting attempts to develop career-related programs that limit rather than expand the students' sense of personal worth and career potential.

REFERENCES

American Speech-Language-Hearing Association. Standards for Effective Oral Communications Programs. Rockville, Maryland: 1979.

Center for Applied Linguistics. Dialects in Educational Equity. Arlington, Virginia, 1980.

Davis, J.S. and Nall, R. "English and Career Education: A Revision of Resources." In Essays on Caree~ Education and English, K-12. Edited by M.M. Kaiser. Ur na, Illinois: National Council of Teachers of English, 1 0.

Davidson, D. et al. "Career Education in the English Classroom." In Essays on Career Education and English, K-12. Edited by M.M. Kaiser. Urbana, Illinois: National Council of Teachers of English, 1980.

Diskin, L. Guidelines on Teacher Preparation: The Sourcebook. Paper presented at the annual meeting of the Conference on English Education, Knoxville, Tennessee, March, 1977. (ED 143 026)

Farrell, E.J. "On Keeping One's Options Open." In Essays on Career Education and English, K-12. Edited by M.M. Kaiser. Urbana, Illinois: National Council of Teachers of English, 1980.

Hansen, L.S. An Examination of the Definitions and Concepts of Career Education. Washington, D.C.: National Advisory Council for Career Education, 1977. (ED 141 609)

Hipple, T.W. and Steiner, S. "CEE Commission on Preparing and Retraining Teachers of English Language Arts to Work with New Clienteles." English Education. 11(February, 1980): 178-179.

Hoyt, K.B. Career Education: Contributions to an Evolving Concept. Salt Lake City, Utah: Olympus Publishing Co., 1975.

_____. A Primer for Career Education. Washington, D.C.: Office of Career Education (DHEW/OE), 1979. (ED 145 252)

Kaiser, M.M. Essays on Career Education and English, K-12. Urbana, Illinois: National Council of Teachers of English, 1980.

Kilby, J.E. Career Education and English, K-12: Ideas for Teaching. Urbana, Illinois: National Council of Teachers of English, 1980a.

28

_____. "Career Education: Implications for Teachers of English." In _Essays on Career Education and English, K-12_. Edited by M.M. Kaiser. Urbana, Illinois: National Council of Teachers of English, 1980b.

_____. "School Counselor Collaboration with Teachers and Other Education Personnel in the Delivery of Career Education." In _The School Counselor's Involvement in Career Education_. Edited by F.E. Burtnett. Falls Church, Virginia: American Personnel and Guidance Association, 1980c. _(ED 183 909)_

Lemke, A. "In Addition to Skills, What?" In _Essays on Career Education and English, K-12_. Edited by M.M. Kaiser. Urbana, Illinois: National Council of Teachers of English, 1980.

Levin, B.J. "Reading Requirements for Satisfactory Careers." In _Essays on Career Education and English, K-12_. Edited by M.M. Kaiser. Urbana, Illinois: National Council of Teachers of English, 1980.

National Assessment of Educational Progress. _Career and Occupational Development Objectives: Second Assessment_. Denver, Colorado: Education Commission of the States, 1977.

National Council of Teachers of English. _Standards for Basic Skills Writing Programs_. Urbana, Illinois, 1979.

Roberts, R.E. "Career Investigation and Planning in the High School English Curriculum." In _Essays on Career Education and English, K-12_. Edited by M.M. Kaiser. Urbana, Illinois: National Council of Teachers of English, 1980.

Russell, P.R. "Learning About Work: A Study of Contemporary Fiction for Children." In _Essays on Career Education and English, K-12_. Edited by M.M. Kaiser. Urbana, Illinois: National Council of Teachers of English, 1980.

Shaughnessy, M.P. _Errors and Expectation: A Guide for the Teacher of Basic Writing_. New York, New York: Oxford University Press, 1977.

Shenk, R. "Our Vocation to Teach the Vocations: The Integration of Career Education with the Teaching of Literature and Writing." In _Essays on Career Education and English, K-12_. Edited by M.M. Kaiser. Urbana, Illinois: National Council of Teachers of English, 1980.

Speech Communication Association. _Guidelines for Minimal Competencies in Speaking and Listening for High School Graduates_. Falls Church, Virginia, 1979.

29

Suhor, C.   "Goals of Career Education and Goals of English
    Language Arts Instruction: A Model."   In Essays on Career
    Education and English, K-12.   Edited by M.M. Kaiser.   Urbana,
    Illinois: National Council of Teachers of English, 1980.

SUGGESTED READINGS

American Institutes for Research. <u>Programs to Combat Stereotypes in Career Choice</u>. Palo Alto, California, 1980. (ED 187 886)

Anderson, P. et al. <u>Career Development Curriculum for English Teachers</u>. Minneapolis: University of Minnesota, College of Education, 1974. (ED 144 069)

Barlow, M.H. <u>Community Involvement in Career Education. A Metropolitan Area Example</u>. Washington, D.C.: U.S. Office of Education, 1978. (ED 153 008)

Berry, E. <u>The Careers of English ajors</u>. Champaign, Illinois: National Council of Teachers of English, 1966. (ED 019 256)

Bestor, D.K. <u>Aside from Teaching English, What in the World Can You Do</u>? Seattle: University of Washington Press, 1977. (ED 145 463)

Bolles, R.N. <u>What Color is Your Parachute</u>? Berkeley, California: Ten Speed Press, 1979.

Brod, R.I. et al., eds. <u>English and Foreign Languages</u>. New York, New York: Modern Language Association, 1976.

Buffington, T. and Associates. <u>Career Education 1978-1979</u>. (ED 186635) Washington, D.C.: Office of Career Education (DHEW/OE), 1979.

_____. <u>Career Education Programs That Work</u>. Washington, D.C.: Office of Career Education (DHEW/OE), 1979. (ED 181 184)

_____. <u>Follow the Yellow Brick Roads</u>. (Report on 1977 Career Education Projects). Washington, D.C.: U.S. Office of Education, 1979. (ED 178 721)

_____. <u>Profiles of Career Education Projects. Fiscal Year 1978 Funding</u>. Washington, D.C.: U.S. Office of Education, 1979. (ED 167 775)

Dodd, J. "Mainstreaming." <u>English Journal</u>. 69(April, 1980): 51-55.

Donelson, K.L., ed. <u>Books For You: A Booklist for Senior High Students</u>. Champaign, Illinois: National Council of Teachers of English, 1976. (ED 130 270)

Evans, R. et al. <u>Career Education in the Middle/Junior High</u>
<u>School</u>. Salt Lake City, Utah: Olympus Publishing Company,
1973. (ED 102 393)

Evans, W.H. "What Does the Research on Alternative Careers Say
to English Departments and English Majors?" <u>College English</u>.
40(October, 1978): 199-205. (EJ 190 259)

Farmer, M.N. <u>Career Education in English: Standing on the</u>
<u>Promises of the Liberal Arts</u>. Speech given at the annual
convention of the National Council of Teachers of English,
Task Force on Career Education, November, 1979.

_____. <u>Concerns and Issues in the Professional Education of</u>
<u>English Teachers 1963-1973</u>. Ph.D. dissertation, Philadelphia,
Pennsylvania: Temple University, 1975. (ED 114 856)

Far West Laboratory for Educational Research and Development.
<u>Educational Programs that Work</u>. San Francisco, California,
1978. (ED 163 665)

Fowler, L.J. "The English Major and the World of Work." <u>College</u>
<u>English</u>. 41(November, 1979): 314-323.

Gere, A.R. and Smith, E. <u>Attitudes, Language, and Change</u>.
Urbana, Illinois: National Council of Teachers of English,
1979. (ED 176 309)

Hager, P. "Test Scores Not as High as Expected." <u>Philadelphia</u>
<u>Enquirer</u>. August 24, 1980, p. 5E.

Hall, L. and High, S.C., Jr. <u>Bibliography on Career Education</u>.
Washington, D.C.: U.S. Office of Education, 1979.
(ED 177 368)

Herr, E.L. and Cramer, S.H. <u>Conditions Calling for Educational</u>
<u>Reform</u>. Washington, D.C.: Office of Career Education
(DHEW/OE), 1974. (ED 109 508)

Hogan, R.F. "Issues in Language Arts Education." <u>Language Arts</u>.
55(February, 1978): 134-136.

Holmes, L.H. "English and Career Training." <u>English Journal</u>.
69(April, 1980): 65-69.

Hoyt, K. <u>Career Education for Special Populations</u>. Washington,
D.C.: Office of Career Education (DHEW/OE), 1976. (ED 132 428)

_____. <u>Considerations of Career Education in Postsecondary</u>
<u>Education</u>. Washington, D.C.: Office of Career Education
(DHEW/OE), 1978. (ED 164 984)

32

_____. A Primer for Career Education. Washington, D.C.: Office
of Career Education (DHEW/OE), 1977. (ED 145 252)

_____. Refining the Career Education Concept. Washington, D.C.:
Office of Career Education (DHEW/OE), 1976. (ED 132 427)

_____. Refining the Career Education Concept, Part II. Washington,
D.C.: Office of Career Education (DHEW/OE), 1977.
(ED 146 362)

_____. Refining the Career Education Concept, Part III.
Washington, D.C.: Office of Career Education (DHEW/OE), 1978.
(ED 164 860)

_____. Refining the Career Education Concept, Part IV. Washington,
D.C.: Office of Career Education (DHEW/OE), 1979. (ED 186 634)

_____. Refining the Concept of Collaboration in Career Education.
Washington, D.C.: Office of Career Education (DHEW/OE), 1978.
(ED 167 808)

_____. Relationships Between Career Education and Vocational
Education. Washington, D.C.: Office of Career Education
(DHEW/OE), 1976. (ED 132 367)

_____ et al. Career Education and the Elementary School Teacher.
Salt Lake City, Utah: Olympus Publishing Company, 1973.
(ED 095 272)

_____ et al. Career Education: What It Is and How to Do It.
Salt Lake City, Utah: Olympus Publishing Company, 1974.

Hull, K. and Hearne, P. The Rights of Physically Handicapped
People. New York, New York: Avon Books, 1979.

Jackson, R. Career Education and Minorities. Washington, D.C.:
U.S. Office of Education, 1977. (ED 149 126)

Jesser, D.L. "Career Education Today: The Greening of a Reform
Movement." College Board Review. 108(Summer, 1978).
(EJ 186 980)

Kaiser, M.M., ed. Essays on Career Education and English, K-12.
Champaign, Illinois: National Council of Teachers of English,
1980.

Kilby, J. Update on English and Career Education. Champaign,
Illinois: National Council of Teachers of English, 1979.

Klein, M.L. Talk in the English Classroom. Champaign, Illinois:
National Council of Teachers of English, 1978.

Kokaska, C.J., ed. <u>Career Futures for Exceptional Individuals</u>.
Reston, Virginia: Council for Exceptional Children, 1979.
(ED 181 631)

Labe, T.P., ed. <u>Career Education: Exemplary Programs for the
Handicapped</u>. Reston, Virginia: Council for Exceptional
Children, 1974. (ED 10_ 489)

Longmate, J. "Turn Over in the ESL Profession." <u>TESOL Newsletter</u>.
14(June, 1980).

Loschiavo, L.A. "Making the Write Career Move." <u>TWA Ambassador</u>.
(June, 1980): 24-28.

Mangum, G.L. et al. <u>Career Education in the Academic Classroom</u>.
Salt Lake City, Utah: Olympus Publishing Company, 1975.
(ED 115 825)

McBath, J.H. and Burhaus, D.T., Jr. <u>Communication Education for
Careers</u>. Falls Church, Virginia: Speech Communication
Association; Urbana, Illinois: ERIC Clearinghouse on
Reading and Communication Skills, 1975. (ED 111 045)

McCarron, W.E. "In the Business World and in Academe: The
English Teacher in the 1980s." <u>College English</u>. 41(March,
1980): 812-821.

Miller, J.V. <u>Career Development Needs of Nine-Year-Olds. How
to Improve Career Development Programs</u>. Washington, D.C.:
National Advisory Council for Career Education, 1977.
(ED 147 497)

Murphy, L.C. and Danton, T.W. <u>Career Education: Implications
for Preparing Teachers of the Handicapped</u>. Paper presented
at the AERA annual meeting, San Francisco, California, April,
1979. (ED 179 799)

Ochsner, R. "Job-related Aspects of the M.A. in TESOL Degree."
<u>TESOL Quarterly</u>. 14(June, 1980): 199-207.

Office of Career Education. <u>1976 Interim Report of the National
Advisory Council for Career Education</u>. Washington, D.C.:
Office of Education, 1976.

_____. <u>Bibliography on Career Education</u>. Washington, D.C.:
Office of Education, 1979. (ED 177 368)

_____. <u>Dealing in Futures: Career Education Materials for
Students, Parents, and Educators</u>. Washington, D.C.: Office
of Education, 1977. (ED 141 573)

41

_____. The Emerging History of Career Education: A Summary View. Washington, D.C.: National Advisory Council for Career Education, 1976. (ED/22 O//

_____. It's Working...Collaboration in Career Education. Washington, D.C.: Office of Education, 1979. (ED 170538)

_____. Reducing Sex Stereotyping in Career Education: Some Promising Approaches. Washington, D.C.: Office of Education, 1979. (ED 174854)

Orange, L.E. English: The Pre-Professional Major. New York, New York: Modern Language Association, 1972. (ED 064 276)

Preli, B.S. Career Education and the Teaching/Learning Process. Washington, D.C.: Office of Career Education (DHEW/OE), 1978. (ED 164 836)

Schilt, C.S. "Teaching English in Lifelong Learning Programs." English Journal. 69(April, 1980): 70-72.

Shaughnessy, M.P. Errors and Expectations: A Guide for the Teacher of Basic Writing. New York, New York: Oxford University Press, 1977.

Sherago, M. "ESL with Advanced High School Students." TESOL Quarterly. 14(March, 1980): 41-52.

Speech Communication Association. Guidelines for Minimal Competencies in Speaking and Listening for High School Graduates. Falls Church, Virginia, 1979.

Stewart, C.J. Teaching Interviewing for Career Preparation. Falls Church, Virginia: Speech Communication Association; Urbana, Illinois: ERIC Clearinghouse on Reading and Communication Skills, 1976. (ED 125 008)

Super, D.E. Career Education and the Meanings of Work. Washington, D.C.: U.S. Office of Education, 1976. (ED 128 593)

Texas Education Agency. Career Awareness - K-6. Austin, Texas, 1973. (ED 101 057)

_____. Career Investigation. Middle Schools. Austin, Texas, 1973. (ED 106 558)

U.S. Commission on Civil Rights. Civil Rights of Asian and Pacific Americans. A Consultation. Washington, D.C., 1979.

42

Wolfram, W. et al. <u>Dialects and Educational Equity</u>. Arlington,
     Virginia: Center for Applied Linguistics, 1979.

RESOURCE ROUNDUP

Books and Pamphlets

<u>Career Education: A Lifelong Process</u>. Jack Fuller and Terry
     Wheaton, eds., 1979. Nelson-Hall Publishing Co., 325 W.
     Jackson Blvd., Chicago, IL 60606. $18.95.

<u>Career Education: Perspective and Promise</u>. Keith Goldhammer
     and Robert E. Taylor, eds., 1972. Charles E. Merrill
     Publishing Co., 1300 Alum Creek Dr., Columbus, OH 43216.
     $9.95.

<u>Jobs and Opportunities for Writers</u>. 1979. Writer's Digest Books,
     9933 Alliance Rd., Cincinnati, OH 45242. One free copy to
     teachers; 50¢ per additional copy for students or others.
     Orders must be accompanied by a self-addressed stamped
     envelope with 20¢ postage for each copy ordered.

<u>Jobs in Communications and Media</u>. 1974. Science Research
     Associates, 155 N. Wacker Dr., Chicago, IL 60606. Order No.
     5-1623. $2.25.

<u>Reading and Career Education</u>. Duane M. Nielsen and Howard F.
     Hjelm, eds., 1975. International Reading Association, 800
     Barksdale Rd., Newark, DE 19711. $5.00.

<u>Your Career As a Writer</u>. Mary Lewis Hansen, 1979. Arco Publishing
     Co., Inc., 219 Park Ave. South, New York, NY 10003. $5.95
     for hardback and $2.95 for paperback.

36

the decision-making process which is used when selecting the training settings for persons with handicaps. For example:

Need to Minimize Training Time.

Original	Revised
"... trainees cannot be allowed to pace training for their individual convenience but must be pushed through training as rapidly as possible.	"... to minimize training time for persons with handicaps may be at odds with the individual's ability to develop the skill.

Conceptually, the basic theme of the original criteria has been maintained in the revised form without exception. However, three new criteria have been identified and added to the list. The new criteria were: Evaluation, Solicitude and Social Cohesiveness/Work Adjustment. Social Cohesiveness/Work Adjustment was the only criterion which was not tested during the course of this study.

The intent of this study was first, to identify the criteria which were used by training authorities to select the training settings for handicapped persons. Second, it was to seek the opinions of impaired workers about how their job competencies were developed and whether the cited criteria were used when their training settings were chosen. Third, to seek opinions from advocates and interested professionals outside the state of Illinois as to whether they would use the criteria when selecting a training setting for a handicapped person.

CHAPTER III

METHOD AND PROCEDURE

Design of the Study

In Phase II the study was comprised of three sub-studies which were
conducted by using a survey form of descriptive research. The first
study was a continuation of the "pilot" study of Phase I. The second
study was a survey of "impaired" workers, and the third study was a
survey of advocates and professionals who were interested in the training
of persons with handicaps. The objectives of these studies were to gather
information about the criteria that had been or should have been used during
the selection of the training setting for handicapped persons. The data
collection procedures were based on those used in Phase I of the study.
Although "structured" questionnaires were used in the interviews, a degree
of latitude was permitted for in-depth probing of topics. The choice of
many of these topics was influenced by the respondents who were interviewed
during Phase I.

In Chapter III the report is divided into five sections which describe
the methods and procedures used in each of the three sub-studies, the quality
controls imposed and the statistical procedures. The first sub-study, the
Authority Study, sought to quantify the criteria for determining the best
approach for training handicapped persons ; second, to address the possibility
of whether additional criteria might be included for determining which method
of training was more efficacious for handicapped trainees, i.e., on-the-job,
classroom/laboratory or a combination of the two training settings; and third,
to validate which criteria were used when the training settings were chosen.

The second sub-study, which surveyed the impaired workers (Worker Study), had four objectives. First, to quantify information which had been used to determine the method for training handicapped persons by occupation. Second, to identify criteria used for determining the selection of the training setting. Third, to identify the criteria which the respondents used to seek employment. And, fourth, to quantify and validate the data for determining which criteria had or should have been used when the training settings of the respondents were chosen.

The third sub-study, the advocate and interested professionals study (Advocate Study), had one objective: to quantify criteria which should be used when selecting the training settings for handicapped persons.

Authority Study

The "Authority" Study is a continuation of the "pilot" study reported in Phase I. However, an added perspective to this study was to conduct a second interview by telephone with all of the former respondents.

Respondents. During Phase I of the study forty-four respondents who work in the state of Illinois were interviewed. In Phase II an additional eighteen respondents were interviewed, two of whom were employed in the state of Minnesota. Therefore, all statistics for this study have been computed for a population of sixty-two respondents.

The respondents were selected because of their involvement at various levels in prevocational or vocational training programs serving the handicapped citizens of communities in Illinois and Minnesota. Each respondent was contacted by telephone and was provided with a brief description of the purpose of the study. If the respondents agreed to participate, a one-hour interview was scheduled.

Questionnaire: first interview. The respondents were interviewed by members of the project staff. The questionnaire in Appendix A, with a "structured interview" format, was employed to guide interviewers' questions and to record responses. The interviewer began each interview by recording background information for each respondent. This information included the respondent's name and job title, the name of the organization for which the respondent worked, organization address and telephone number, and the condition and level of handicap of the persons served by the organization.

The interviewers asked each respondent to read descriptions of on-the-job training (OJT) and classroom/laboratory training (CL) and asked him/her to choose the most accurate description of the type(s) of training provided. In addition, respondents were asked to describe their training programs. This description included: 1) the design of training (e.g., upgrading existing employees or entry for new employees); 2) the intent of training (e.g., entry level performance, progression on a specific job, or transfer to a related occupation); 3) the occupation(s) for which training was designed; 4) the skill level and affiliation of trainers, and, finally 5) the kinds of study materials used by trainees.

Twenty-four sets of questions were asked to each respondent based upon the criteria for determining the setting for training of handicapped persons derived from the revised Evans et al. (1976) investigation. Each item was divided into two types of questions. The first type of question was a criterion quantification question. The purpose of these questions was to quantify each criterion by translating it into terms which could be measured by a numerical figure, a percentage, or some other scaled

response. For example, to quantify the cost criterion, the following statement was posed to the respondents: "The average cost of training a student (new employee) to the apprentice level (i.e., person has completed training) is $_____."

The second type of question inquired about each criterion, and was described collectively as criterion opinion questions. These were questions which required the subject to make a judgement about the preferable training method based upon her/his experience. For example, the judgement or "criterion opinion" question asked the respondent: "Realism of training can best be created with OJT ... 1, CL ... 2, COMB ...3." The responses to both criterion quantification and criterion opinion questions were recorded by interviewers.

Questionnaire: second interview. The questionnaire in Appendix B, which was used in the telephone interview, sought to further quantify and validate by data which criteria were used when selecting the training settings. The questionnaire was composed of two sections. Section one contained information to identify the respondent and to define specific terms of the study. Section two contained instructions to the respondent and listed the twenty-six criteria with descriptions. Each criterion had a Likert scale which permitted the respondent to make a judgement about the criterion. Using a seven point scale, the respondents were given the option to evaluate the extent to which they believed each criterion was used in the selection of the training setting for the vocational development of persons with handicaps.

Settings for interviews. The first interview was conducted face-to-face with the respondent. The time and place of interviews was determined by

each respondent. Each respondent was contacted by a project staff member (interviewer) and asked if he/she would participate in the study. If agreeable, the interviewer scheduled an interview at a time and location that was convenient to the respondent. Approximately two weeks prior to the interview, the interviewer mailed an information packet to the respondent. The contents of this packet included a letter identifying the name of the interviewer, the time and location of the interview, and a "skeleton" copy of the questionnaire. Respondents were asked to skim the questions in the skeleton questionnaire to familiarize themselves with areas of inquiry before the actual interview.

For the second interview the telephone was used to establish appointments and to conduct interviews. Fifty-one of the sixty-two respondents were available and willing to participate. Prior to the interview a copy of the questionnaire was mailed to forty-eight of the respondents, and to three of the respondents, who were sight impaired, both a questionnaire and a tape recording of the questionnaire were mailed.

Worker Study

The "Worker" Study is a sequel to the Authority Study with both a face-to-face and a telephone interview.

Respondents. Twenty-six "impaired" workers who are tenured employees (Tenure for the purpose of this study is twenty-four consecutive months or longer in the current employment.) live and work in the state of Illinois. The majority of the workers had physical impairments, but it was assumed that those who had other types of impairments differed no more from those who were physically impaired than the physically impaired differed from each other. The workers were identified as a result of inquiries made

4:9

to various training agencies which were asked to nominate individuals
with whom they had had a current or former relationship. Each worker
was identified by means of a modified form of "referral sampling" which
appeared to be the most reasonable approach for reaching this low density
and socially inconspicuous population for whom no central reference was
available (Welch, 1975). The referrals (or branching nominations) pro-
vided the names of individuals for inclusion in the survey who met the
prerequisites: "tenured" and "impaired." It was assumed that since
each respondent was employed and had volunteered willingly to participate
in the study, their conceptions of "training for work" and their prepara-
tion for work would be compatible and equal. Twenty-three respondents
were interviewed by the staff (Three respondents were not available
for the second interview.) using two questionnaires with "structured
interview" formats. With each questionnaire interviewers asked respondents
specified questions and recorded their answers.

Questionnaire: first interview. The questionnaire in Appendix C,
which was used in this face-to-face interview, had three objectives.
First, it sought to quantify and identify by data the training method
which had been used when job competencies were developed for the respondents;
second, it sought to identify criteria which were perceived to <u>have been</u>
<u>used</u> or <u>should have been used</u> by training authorities when determining
the training setting for these workers; and third, it sought to identify
the criteria which the respondents used to seek employment. In this eleven-
section questionnaire the interviewers recorded the respondents' answers
in the appropriate blanks. The first, second and eleventh sections were
used to record the demographic background of the respondents. The third,

fourth, and fifth sections were used to record the characteristics of respondents' training settings. Sections six, seven, eight and ten were used to determine what criteria were considered when the respondents' training settings were selected, and section nine was composed of questions which identified the criteria used by the respondents when seeking employment.

Questionnaire: second interview. The questionnaire in Appendix D, which was used in the telephone interview, sought to quantify and validate the data for determining which criteria had been used by training authorities for determining the training setting of the respondents and which criteria, in the opinion of the respondnets, should have been used. The questionnaire was composed of two sections. Section one contained information to identify the respondent and to define specific terms of the study. Section two contained instructions to the respondent and listed the twenty-six criteria with descriptive definitions. Each criterion had two Likert scales which permitted the respondent to make two different judgements about each criterion. The first was a seven point scale which permitted the respondent to evaluate the extent to which he/she believed the criterion was used in the selection of the training setting for their vocational development. The second was a five point scale which permitted the respondent to evaluate the extent to which he/she believed the criterion should have been used in the selection of his/her training setting.

Setting for interviews. For the first interview the time and place of interview was determined by each respondent. Twenty-four respondents were contacted initially by mail to seek their willingness to participate in the study. If the reply indicated agreement, an interview was scheduled

by telephone. Two respondents were contacted by the agency which informed the interviewer, and the interviewer made an appointment with these respondents by telephone.

The second interviews were arranged by telephone appointments. The interviewers were able to locate only twenty-four of the original twenty-six respondents who were willing to participate in this phase of the study. A copy of the questionnaire was mailed to twenty-three of the respondents to permit them to plan their responses prior to the interview. (One questionnaire was administered face-to-face because the respondent had a literacy deficit.) The interviewers were able to collect data from twenty-three respondents. The twenty-fourth respondent became ill and was not available for interview.

Advocate Study

The Advocate Study was designed to identify criteria which <u>should be used</u> when choosing a training setting for persons with handicaps. The identity of these criteria was obtained from advocates and interested professionals from outside the state of Illinois.

<u>Respondents.</u> Thirty-five persons who participated in this study worked in the Commonwealth of Pennsylvania, the District of Columbia, and the states of California, Delaware, Kansas, Michigan, New Hampshire, New Jersey, New York, Ohio and Oregon. All of these respondents had been participants in a program at a national conference or an "invited" seminar presented by the staff. The program reported the results of Phase I of the study and was used to solicit the opinions of the audiences about the criteria.

Questionnaire. The questionnaire in Appendix E was used to solicit the opinions of each audience. The data processed from these audiences were to identify the criteria which advocates and interested professionals believed should be used when choosing a training setting for persons with handicaps. The questionnaire was composed of a Participant Section and a Questions Section. The Participant Section was used by the respondents to first identify their hypothetical job title; and second, to identify the total number of months in their present job, the agency with whom they were affiliated, the city/town and state of current employment, and the identity of the handicap population with whom they had had experience. The Questions Section contained instructions to the respondent and listed the twenty-six criteria, with descriptive definitions and a number. If the respondent circled the number, it meant that the criterion would have been used during the process of selecting the training setting.

Setting. The settings for the programs were national professional conferences and "invited" seminars in California, Georgia, Pennsylvania and Washington, D.C. The programs used a lecture-discussion format supported by 35mm photograph-transparencies (slides) which were used to portray the statistical results of Phase I. The first half of the program provided background information, described the criteria and addressed the research hypotheses and questions. The second half of the program involved the administration of the questionnaire and the discussion of the results. After the questionnaire was distributed to the audience, the program leader first, invited participants to choose a professional role in which they would participate during the process of selecting a training setting for persons

with handicaps. Next, the audience was asked to choose the criteria which they believed should be used when choosing the training setting, and for example, if the respondent circled the number "1" on the questionnaire, this indicated the respondent would have used that criterion in the process of selecting the training setting.

Quality Control

To assure reliability of the raw data collected during Phase I and II of the study, the project staff developed procedural guides (Appendixes F and G), interviewer training programs and a means to assess the respondents' self-reliance in answering interview questions.

Interviewer training. Each interviewer participated in a training program to learn to adhere to a standardized procedure for interviewing respondents. The intent of the training was to improve procedures for collection of data and to improve the quality of data collected. The procedure during each of the three, eighty minute, training sessions involved a discussion of the procedures to be used. It included one skilled interviewer conducting an actual interview and recording responses while the semi-skilled interviewer trainee also recorded the responses of the respondent. The interviewer trainee's recorded performance across all possible responses was calculated. The number of agreements was divided by the total number of possible responses (agreements + disagreements) and multiplied by 100 to yield the evaluated performance for the interviewer trainee.

$$\text{Evaluated Performance} = \frac{\text{Agreements}}{\text{Agreements + Disagreements}} \times 100$$

The trainee's performance for each training session during Phase II was ninety-nine percent or better on the face-to-face questionnaire (Appendixes A and C) and the telephone type questionnaire (Appendixes B and D).

Training Session	Interview	Performance (%)	Agreements + Disagreements
1	Face-to-Face	99.2	264 + 2
2	Face-to-Face	99.6	266 + 1
3	Telephone	100.0	52 + 0

Assessment of responses. Each question or question group of the questionnaire in Appendixes A and C were accompanied by a "Response Confidence Code." This code was recorded by the interviewers to evaluate a respondent's self-assurance when answering face-to-face interview questions. If, for example, a question was assessed to rate a "1" by seventy-five percent of the persons responding, that question's value was appraised to be a sound response, but if the response was rated a "3" by a like number of respondents, the question's value was thought to be suspect and was not included in the data analyses.

Statistical Procedures

Data analysis procedures. Frequency distributions, percentages, means, factor analysis and a t-test were used to respond to all research questions and to test the research hypotheses in this study. However, in order to analyze the data by occupation in the Worker Study the investigators choose to separate the workers into two groups: the "most complex" and the "complex." Using the hierarchy of worker functions listed in the Dictionary of Occupational Titles, the respondents' jobs' relationship to Data, People and Things (Appendix G) were grouped. The three listings, Data, People and Things, were divided

at the functions: 4 Computing, 4 Diverting and 4 Manipulating, respectively.
Using the fourth, fifth and sixth digits of the respondents' job identity
codes, the investigators were able to classify the respondents by the location
of their three digits in the three worker function listings. When a
respondent's worker function digits were located in any two of the listings
with a digit between zero and four inclusive, the job was grouped in the
"most complex" category.   When two or more digits were five or greater, the
job was grouped in the "complex" category. For example: the first six digits
of the Transcription Secretary and Officer Manager's DOT code is 202 132.
The fourth digit, "1", form the Data list identifies the function 1 Coordinating.
The fifth digit, "3", from the People list identifies the function 3 Supervising.
The sixth digit, "2" from the Things list identifies the function 2 Operating-
Controlling. Since two or more of the function codes appear between zero and
four, this worker was assigned to the "most complex" group.

Statistical limitations. (1) Authority Study: Nie, Hull, Jenkins, Stein-
brenner & Bent (1975) caution researchers who use factor analysis to be con-
scious of potentially misleading results when a small set of independent
variables (e.g., twenty-six criteria in this study) are used to determine
the degree to which any given criterion or several criteria are a part of a
common underlying phenomenon. Therefore, the investigators chose to use
factor analysis for only exploratory purposes and is not reported in this
study. (2) Worker Study: Due to the large number of different "impairments"
in the population studied, the low number of cases of each type of impairment
and due to the low number of respondents with non-physical impairments, the
investigators deemed it inappropriate to attempt to compute statistical
significance of the interaction of relationships between the identified
criteria and other variables.

CHAPTER IV

RESULTS

Chapter IV reports in three sections and a summary the findings of the study. The data reported are sufficient to test the research hypoeses and to answer the research questions. The first and second sections report the findings of the Authority and Worker Studies, respectively. The third section reports the findings of the Advocate Study, and the chapter closes with a summary. (Note: In this chapter the percentages in some frequency distributions have been rounded by .9 or less to permit the summing of percentages to 1^0.)

Authority Study

Respondents

Respondents selected for participation in this study were identified on the basis of their professional relationships in the training of persons with handicaps. With these relationships in mind, the respondents were grouped in one of four job categories: counselor, administrator, trainer (instructor) or employer.

Counselor. The first category was composed of counselors. Their primary function in the training setting was to assist the handicapped trainee in the decision-making process of choosing a vocation.

Administrator. The second category was composed of administrators of training programs serving individuals with handicaps. Respondents selected for inclusion in this category were individuals involved in making the policy and procedure decisions of prevocational and vocational training programs.

Trainer. The third category included those people involved in developing, implementing, and teaching prevocational and vocational skills to persons with handicaps.

Employer. The fourth category of respondents were persons who employed, supervised, or fulfilled similar roles in industry and were directly or indirectly related to the training of persons with handicaps.

Identification of Respondents in Phase II. In Phase I the respondents were predominantly administrators and trainers. Consequently, in Phase II, emphasis was placed on finding respondents who were counselors and employers. The staff obtained the identity and, subsequently, the interviews from this supplemental population by inquiries to various agencies (see Appendix F) involved in the training of persons with handicaps and by referrals of respondents who participated in Phase I. A total of eighteen additional respondents were identified and participated in the study which enlarged the study population to sixty-two (N=62). Table 2 provides a frequency distribution of the total number of respondents in the Authority Study grouped according to job category, and Table 3 provides a frequency distribution of this population grouped by the handicapping condition of the trainee.

Table 2
Respondents Grouped
by Job Categories
N=62

Category	N	%
Counselor	15	24
Administrator	19	31
Trainer	17	27
Employer	11	18

Table 3
Respondents Grouped
by Handicapping Condition of Trainee
N=62

Trainee's Condition	N	%
Physical	13	21
Cognitive	24	39
Visual	14	22
Auditory	7	11
Speech	1	2
Multiple	3	5

The frequency distributions in these two tables appear to reflect an
equitable distribution by job but an inequitable distribution by trainees'
condition of handicap. Therefore, the investigators chose to collapse
the data into four major categories of handicap during the second interview
and the level of severity of handicap, i.e., mild, moderate or severe has
been deferred to a future study because the respondent populations were also
inequitably distributed for each condition of handicap. For example, there
were twenty-four of the sixty-two respondents who were involved in the train-
ing of persons with "cognitive" conditions of handicap, however, when these
respondents were grouped by level or severity of handicap, the distribution
of respondents was MILD, N=6; MODERATE, N=16; and SEVERE, N=2.

In Figure 1 the respondents' counties or city of employment are reported.
Two of the respondents were employed outside the state of Illinois in

② Minneapolis, Minnesota

Figure 1. Respondents' location of employment (Authority Study).

Minneapolis, Minnesota. The balance of the population was employed in the following county areas in the state of Illinois: ten were in Cook County; thirty-eight were in Champaign County; nine were in Macon County; two were in Sangamon County; and one was in Macoupin County.

Criteria Used in the Selection of the Training Setting

In this section the analyzed data which identified the criteria for the selection of the training method are reported. This data was collected during the first interview (face-to-face) with the questionnaire in Appendix A. When a respondent replied to a specific question, it was believed to be an honest, knowledgeable reply and an indication of which criteria were used and/or considered when choosing a training setting for handicapped trainees. The results obtained for each criterion are reported graphically in Figures 2, 3 and 4. Each alphabetized, graphical portrayal of data is keyed to the alphabetical prefix of each criterion in the text, e.g., A. Abilities and Aptitudes refers to the pie chart illustration: A. ABILITIES/APTITUDES.

A. Abilities and Aptitudes - demonstrated performance of the trainee in both physical and mental skills, and the measured talent of the trainee to learn and/or understand specified skills in a short period of time.

In Figure 2, Illustration A, the response to the question which pertained to the "Best method when trainees acquire skills slowly" [Q. 8c(1)] was a fifty-nine percent agreement by the respondents that trainees who acquire skills slowly can best be trained to perform the tasks of a job through on-the-job training.

B. Availability and Suitability of Physical Resources - obtainable
training equipment and facilities for persons with handicaps to promote
conditions which are identical to those the trainee will encounter on
the job.

In Figure 2, Illustration B, the abbreviated subjective statement in

the questionnair , pertaining to this criterion was "Actual job conditions

are more feasible in OJT: ____, CL: ____, COMB: ____" [Q. 5d(2)]. As

expected, again eighty-one percent of the respondents strongly indicated

that actual job conditions were usually more feasible in an on-the-job

training setting and the balance of the respondents selected a combination

of training settings.

C. Capability - the ability of a training activity to conduct training
for persons with handicaps without degrading the quality of the trainee's
post-training job performance.

In Figure 2, Illustration C, the results portrayed are based on the

question pertaining to the "Method with most capable instructors" [Q. 5b(2)] .

It appears that the most capable instructors for training persons with handi-

caps are usually acquired, according to fifty-one percent of the respondents,

from a combination of training settings (on-the-job and classroom/laboratory).

D. Complexity - the number of principles, procedural sequences and motor
skills required of the trainee to perform tasks and master requisite skills
for the job.

To authenticate the identity of the criterion and to choose the best

setting for training, the respondents were asked to specify the "Best method

to teach easy to learn [least complex] tasks [Q. 7d(3)]. In Figure 2, Illustra-

tion D, forty-six percent of the respondents were in agreement that both

classroom/laboratory training in conjunction with or succeeded by on-the-job

training was the best method for teaching complex tasks. And, sixty-seven

percent of the respondents chose on-the-job training for teaching the least

complex tasks.

E. <u>Costs</u> - the amount of money, time, work, etc. expended to provide the facilities, personnel, resources, materials, equipment, transportation, prosthesis, etc. to train persons with handicaps.

In Figure 2, Illustration E, the "Most cost-effective method" [Q. 5a(3)] of training persons with handicaps appears to be on-the-job and a combination of classroom/laboratory plus on-the-job training, according to fifty and forty-three percent, respectively, of the persons interviewed.

F. <u>Criticality</u> - the ability of the trained worker to execute the .essential skills to <u>combat</u> high risk conditions on the job.

The "Best method to teach skills involving high risk" [Q. 7b(2)] was a combination of training settings which was chosen by forty-four percent of the respondents, and thirty-eight percent chose on-the-job training (see Figure 2, Illustration F). Only eighteen percent of the respondents stated that skills involving high risk could best be acquired through classroom/laboratory instruction.

G. <u>Disabilities</u> - effect of trainee's handicapping condition upon the choice of training settings and the complexity of skills to be learned.

In addition to identifying the criteria used in decision-making, this study focused on identifying the setting within which trainees with specific handicaps could best learn to develop skills. In Figure 2, Illustration G, the "Best method when trainees have skill deficits [or handicaps] which are" physical, cognitive or visual was a combination training setting, and when the trainees have auditory handicaps, there appears to be a toss-up between on-the-job and combination training settings [Q. 8b(1) through Q. 8b(5)]. The differences in the responses between choosing on-the-job and combination training settings for persons with physical, cognitive and visual handicaps were minimal: an eight percent difference for the

physical, a three percent for the cognitive, and a one percent difference

for the visual. It is apparent the respondents were in general agreement

that trainees with handicaps, whether mental or physical, could learn to

master tasks better through on-the-job or a combination training setting.

H. <u>Evaluation</u> - appraisal of the quality of training received by
the trained worker during her/his training program.

In Figure 2, Illustration H, fifty-two percent of the persons who re-

sponded to the survey question about this criterion indicated that the

quality of training can be assessed "most economically ... <u>in</u>" an on-the-

job training setting (Q. 5h). Unfortunately, the word "in" in the question

may be interpreted as "during" or "as a result of." The interpretation

"during" was intended.

I. <u>Frequency</u> - the extent to which the tasks that most workers per-
form at a given skill level on-the-job are repetitive.

In the Evans et al. (1976) study, caution was advised in making decisions

about teaching tasks in a specific training setting because more or less

than fifty percent of the "nonhandicapped" graduates were required, after

placement, to perform the tasks on-the-job. Evans and his cohorts advised that

the repetitive (or non-repetitive) performance of tasks should <u>not</u> be the

governing cirterion in determining the training setting. They recommended

that additional criteria should be considered before making the decision,

e.g., Performance of Graduates, Criticality and Cost. In Figure 2, Illustration

I, fifty-eight percent of the respondents chose on-the-job training as the

"Best method to teach on-the-job tasks which are performed weekly" [Q. 7a(3)].

H. <u>History and Pragmatism</u> - factors such as the results of research ·
or personal experiences, that influence the decisions of training authorities
to teach a competence on-the-job or in a classroom/laboratory setting.

In Figure 3, Illustration J, the respondents indicated that an or-
ganization which uses a specific method of training, chose the method
based on one of three different factors. For on-the-job training, fifty-
one percent of the respondents reported Data (research) to be the influencing
factor. In the classroom/laboratory training setting Tradition ("we've
always done it that way") was the factor. And, for the combination train-
ing setting, fifty percent of the respondents indicated that Both (Data
and Tradition) were the influencing factors [Q. 5g(2) through Q. 5g(4)].

K. Instrumentality - generic skills in mathematics (read, write,
and count) and communications (literal comprehension in reading and
fluency and idea organization in writing and speaking) that are
essential in learning competencies for the job.

In Figure 3, Illustration K, the "Best method to teach basic educational
skills" is reported by fifty-three percent of the respondents to be in the
classroom/laboratory setting [Q. 7g(2)]. In this sub-study, the kinds
of tasks performed by most of the handicapped trainees did not require
extensive skills in reading, computing, or communication. Only about fifty
percent of the tasks required these skills [Q. 7g(1)].

L. Need to Minimize Training Time - the demand for workers in a
given occupation which dictates a reduction in the amount of trainee
preparation time to gain knowledge and abilities for satisfactory
job performance.

The results of the interviews indicate that on-the-job training is
the best training method "when time for training is limited" [Q. 6c(2)]
(Figure 3, Illustration L). Further interpretation of these results
indicate that under most conditions the time needed to train the handi-
capped trainees·is considerably less when the training mode is on-the-job
training. One reason for this may be that some parts of classroom/laboratory
and/or combination training are not immediately or totally transferable to
the assigned job.

M. <u>Number of Personnel to be Trained</u> - the trainee space in the classroom/laboratory or on-the-job, that may be occupied at any given time and will not adversely affect trainee and instructor time, use of equipment, materials, and facilities.

In Figure 3, Illustration M, the results indicate that "A large number of trainees can best be trained" in a combination training setting [Q. 6a(2)]. But, instructor time, use of equipment, material and facilities are cost effective elements of the training program when the flow of trainees through a classroom/laboratory setting is large, and the cost advantage in an on-the-job setting may disappear when the work place is subjected to a large number of trainees.

N. <u>Passage of Time</u> - the loss of knowledge and/or skill proficiency caused by the time interval between the completion of training and the initial performance on-the-job.

The "Least retraining" was required when the method of training was on-the-job [Q. 7f(6)], according to the results shown in Figure 3, Illustration N. Although most of the handicapped trainees referred to in these interviews had poor retention of verbal and written communications, the majority of the jobs for which they were trained required manipulative task-orientations rather than cognitive. Therefore, within reasonable time limits, the handicapped trainees, upon job placement, were able to retain the ability to perform most tasks with an acceptable degree of success.

O. <u>Performance of Graduates</u> - the comparative evaluation of workers' performance, based on their mode of training, to ascertain the best setting for specified skills to be developed.

In general, the results (Figure 3, Illustration O) identify combination trainees (fifty-seven percent) were the "most competent employees" [Q. 7e(2)]. The least competent were graduates who were trained in a classroom/laboratory setting.

P. Persistence of Demand for Trained Personnel - the influence of long-term job market requirements for trained workers in a specified occupation.

Fifty-four percent of the persons responding chose the combination training setting (Figure 3, Illustration P) as the "Best method when personnel are needed over an extended period" [Q. 6b(4)]. It appears that the respondents believed that the tasks of the job were best taught in a job-like situation regardless of the long-term job requirement for the trained worker.

Q. Philosophy and Policy - the best values, concepts, and systematic efforts that are formulated from experiences, hearsay, and/or research, that are used by industries and schools to clarify and coordinate their beliefs and that are eventually integrated into the "official" practices of the institutions concerned.

The specific question [Q. 5c(2)] designed to provide information about this criterion was: "Based on the policy of your organization the type of training preferred is OJT: ____; CL: ____; COMB: ____; NO PREFER-ENCE ____." The results were fifty-nine percent of the respondents indicated that their organization ususally preferred a combination of classroom/laboratory and on-the-job training as the method of instruction (Figure 3, Illustration Q).

R. Ports of Entry - the effect of local, state, or federal licensing agencies upon the pre-job entry training of workers.

In Figure 3, Illustration R, the "Method specified by a licensing agency or specific jobs" [Q. 7i(3)] was on-the-job training, according to fifty percent of the respondents. The number of respondents (N=12) who replied to this question indicates that a large majority of the jobs for which the respondents provided training were not controlled by a licensing board or agency. Most of the handicapped graduates of the training programs covered by this study were employed in service activities associated with food and facilities or engaged in jobs whose task and work behavior patterns required the use of simple tools and limited communicative skills. These types of jobs were usually not licensed or controlled by government agencies. Therefore, the Ports of Entry criterion has limited application for determining whether on-the-job training or classroom/ laboratory instruction or a combination of the two provide the best setting for teaching the handicapped trainees a skill.

S. Preferred Learning Modes - the training setting which is most preferred by the trainee to learn skills of the job.

In response to the question, "Which training method is preferred by the trainees for learning the skills of the job?" [Q. 8a(1)], the educators and the employers who train persons with handicaps were in strong agreement, sixty-three percent of those responding, that the trainees preferred to learn by on-the-job training. Another interesting observation depicted in Figure 4, Illustration S, was that only five percent of the sixty respondents stated a preference for classroom/laboratory instruction. Therefore, it appears that most of the respondents' handicapped trainees attained greatest career satisfaction when they were able to work and learn on the job. The results of the study also seem to indicate that trainee's

preference for learning method should be taken into consideration when the circumstances permit.

T. <u>Prior Experience</u> - the individual skills and knowledge acquired from previous training or work which are potentially transferable to the "new" behavior to be learned.

The results provide support for the idea that trainees who have these pre-training performance behaviors can best be trained in an on-the-job or a combination of on-the-job and classroom/laboratory settings [Q. 8d(2)]. The results in Figure 4, Illustration T, indicate that only five percent of the fifty-eight respondents chose a classroom/laboratory setting for maintaining or improving prior performance behaviors. It may be assumed, then, that in general, the respondents believed that prior experience of the trainees was job-specific and that basic cognitive skills were not very relevant for competent job performance.

U. <u>Quality Control</u> - the degree of excellence in post-training job performance which is attributable to the type of training received.

In Figure 4, Illustration U, the "Average number of days for a trainee to produce work of acceptable quality" [Q. 7h(2)] by training setting was sixty-three days for on-the-job, three hundred and thirty-six plus days for classroom/laboratory and one hundred and twenty-eight days for combination.

V. <u>Reality of Atmosphere</u> - the training setting where <u>realism</u> can best be created to be most like the work place.

There was an indication on the part of the respondents that realism was required in the development of training programs for persons with handicaps. However, no one knew to what degree reality of atmosphere improved the technical skills of the trainees. Although the survey did

not address directly the degree of effectiveness of this criterion, it is clear that seventy-two percent of the respondents do support the concept that reality of atmosphere (Figure 4, Illustration V) reinforces the learning of technical skills and "can best be created" in an on-the-job training setting [Q. 5e(2)].
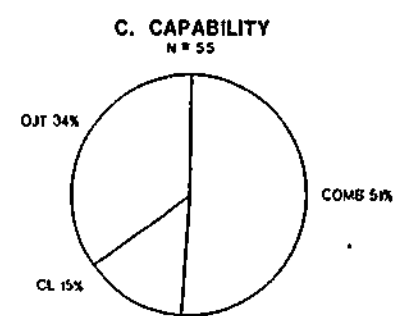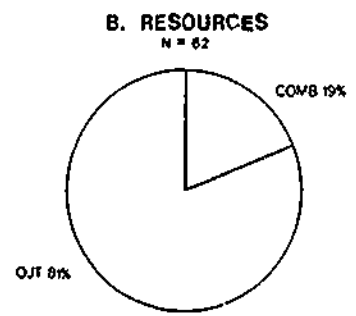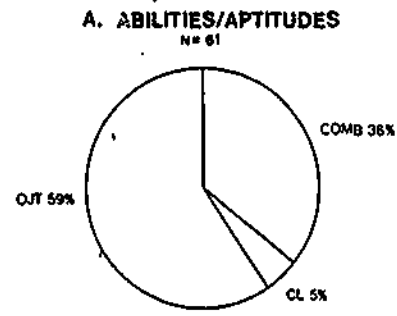
W. Screening Device - the use of training as an assessment strategy to identify, train, hire, and/or promote persons with handicaps.

In Figure 4, Illustration W, the "Best method to evaluate a trainee for hiring and promotion" [Q. 5f(2)] was in an on-the-job training setting. Comments by some respondents indicated that trainee strengths and weaknesses in relation to people and material things were more readily assessed on-the-job than they were in a classroom environment. Therefore, they believed that security checks or physical/psychological examinations for assessing the reliability of the persons' performance in difficult situations were best accomplished in conjunction with on-the-job or combination training.

X. Social/Work Cohesiveness. Research of this criterion had been deferred to a future study.

Y. Solicitude - acts of pity or encouraged "dependency" which affect the social interactions of handicapped and nonhandicapped persons in both the training and work settings.

This criterion was not tested during the face-to-face interview but it was included in the telephone interview (Appendix B). The results depicted in Figure 4, Illustration Y, indicate that the educators and employers, grouped by their organizations' training setting, confirmed that they used this criterion OFTEN to ALWAYS. Fifty-four percent of the respondents who are affiliated with organizations that use a combination training setting, thirty-one percent of the respondents from on-the-job training

A. ABILITIES/APTITUDES
N = 61

COMB 36%
OJT 59%
CL 5%

B. RESOURCES
N = 62

COMB 19%
OJT 81%

C. CAPABILITY
N = 55

OJT 34%
COMB 51%
CL 15%

D. COMPLEXITY
N = 61

	OJT	CL	COMB
Complex	41%	13%	46%
Least Complex	67%	13%	20%

E. COST
N = 58

OJT 50%
COMB 43%
CL 7%

F. CRITICALITY
N = 60

COMB 44%
OJT 38%
CL 18%
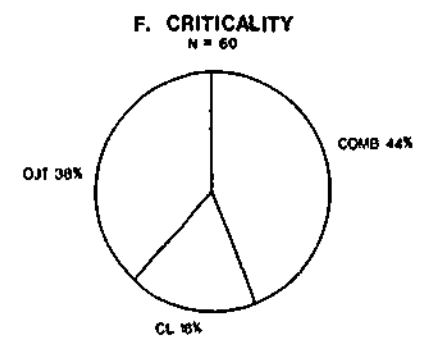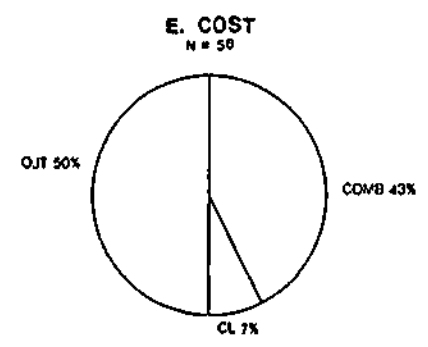
G. DISABILITIES

		OJT	CL	COMB
Physical	N = 46	41%	10%	49%
Cognitive	N = 46	41%	15%	44%
Visual	N = 58	41%	17%	42%
Auditory	N = 43	44%	12%	44%

H. EVALUATION
N = 59

COMB 34%
OJT 52%
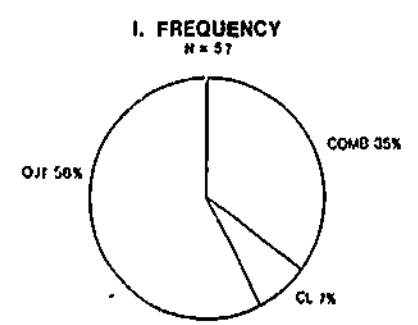CL 14%

I. FREQUENCY
N = 57

COMB 35%
OJT 58%
CL 7%
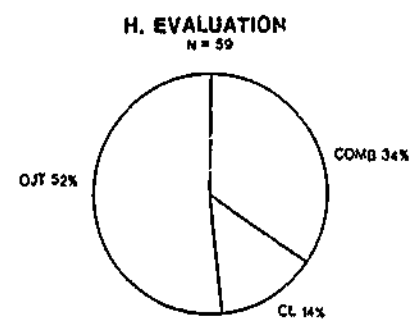
Figure 2. Identified criteria and the preferred method of training (Illustrations A through I).

J. HISTORY AND PRAGMATISM

Data 51% | 34% | 37%
| 27% |
Both 34% | | 50%
| 39% |
Tradt. 15% | | 13%

OJT N = 58 CL N = 44 COMB N = 47

K. INSTRUMENTALITY
N = 62
OJT 10%
COMB 37%
CL 53%
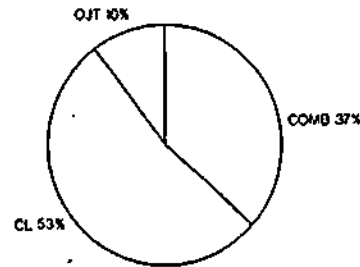
L. MINIMIZE TIME
N = 62
COMB 29%
OJT 61%
CL 10%
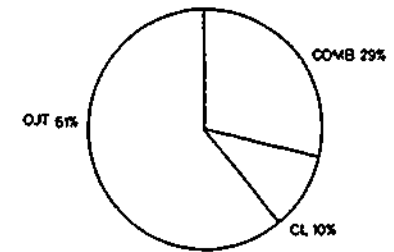
M. NUMBER REQUIRED
N = 60
OJT 16%
COMB 47%
CL 37%
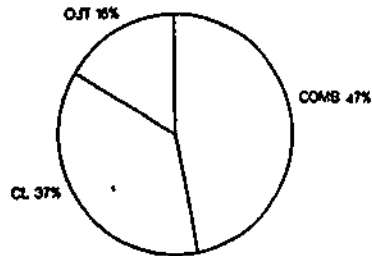
N. PASSAGE OF TIME
N = 50
COMB 36%
OJT 56%
CL 6%
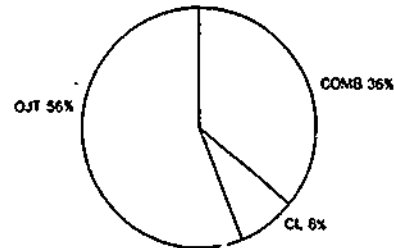
O. PERFORMANCE OF GRADUATES
N = 51
OJT 30%
COMB 57%
CL 14%

P. PERSISTENCE OF DEMAND
N = 57
OJT 39%
COMB 54%
CL 7%
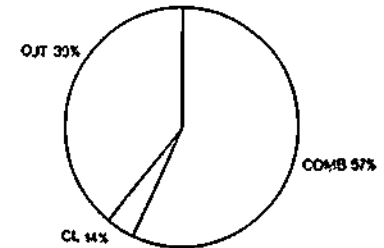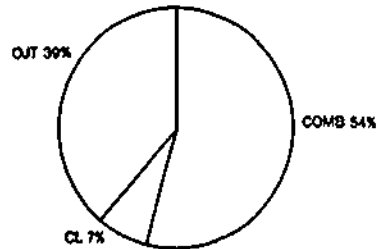
Q. POLICY
N = 59
OJT 29%
CL 12%
COMB 59%
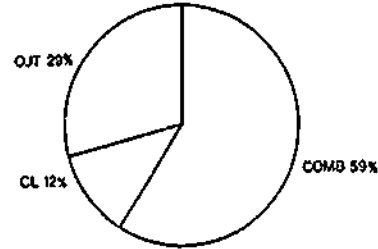
R. PORTS OF ENTRY
N = 12
COMB 13%
OJT 50%
CL 37%
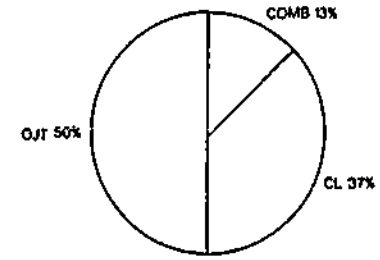
Figure 3. Identified criteria and the preferred method of training (Illustrations J through R).

S. PREFERRED METHOD
N = 60

COMB 32%
OJT 63%
CL 5%

T. EXPERIENCE
N = 58

COMB 50%
OJT 45%
CL 5%

U. QUALITY CONTROL
N = 53
Range = 996 days

Mean No of Days

400
300
200
100
0

336 •
128
63

OJT 43%   CL 15%   COMB 42%

V. ATMOSPHERE
N = 61

COMB 28%
OJT 72%

W. SCREENING DEVICE
N = 60

COMB 38%
OJT 48%
CL 14%

X. SOCIAL/WORK COHESIVENESS

?

Y. SOLICITUDE
N = 48

COMB 54%
OJT 31%
CL 15%
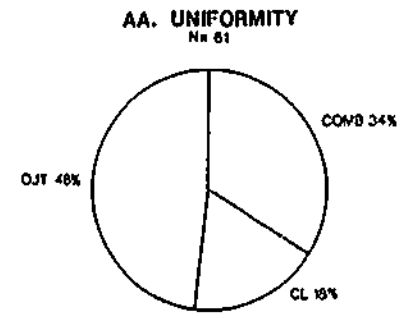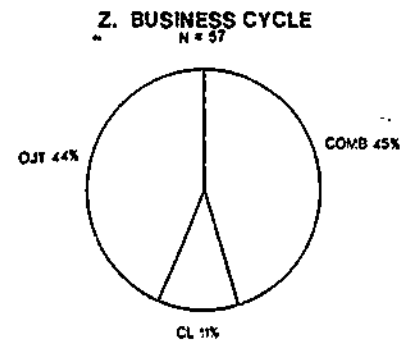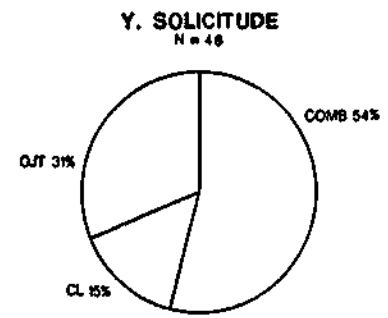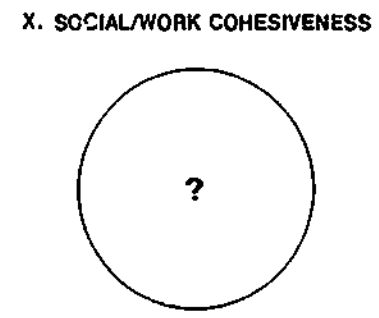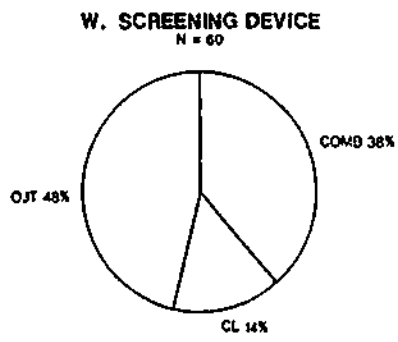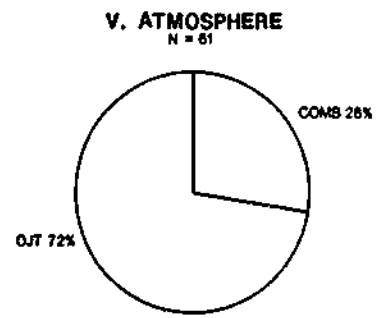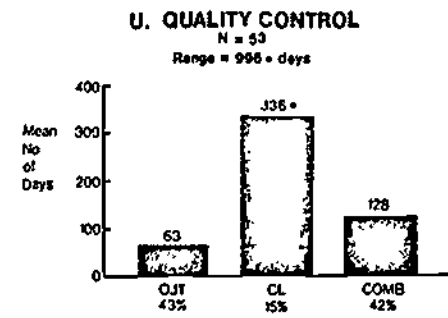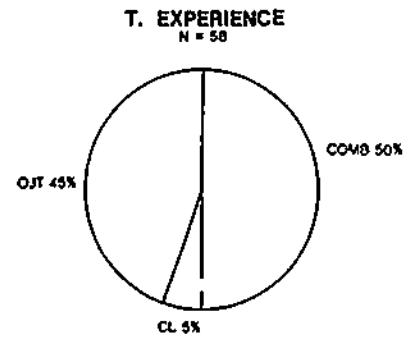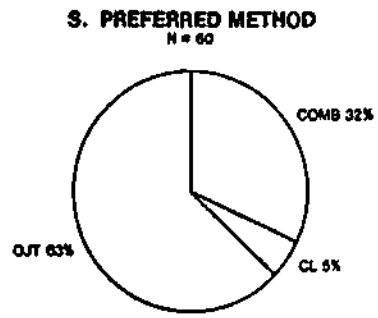
*Data obtained from "validation" study.

Z. BUSINESS CYCLE
N = 57

COMB 45%
OJT 44%
CL 11%

AA. UNIFORMITY
N = 61

COMB 34%
OJT 48%
CL 18%

Figure 4. Identified criteria and the preferred method of training (Illustrations S through AA).

settings and fifteen p ~cent from classroom/laboratory settings confirmed

their use of the criterion.

Z. <u>State of the Business Cycle</u> - the extent to which the economy
is able to support full employment for all those desiring work
(Levitan & Taggart, 1977).

In Figure 4, Illustration Z, the results of the study indicated that

"when the demand for workers is high" [Q. 6d(2)], training can best be

supplied through either on-the-job (forty-four percent) or combination

(forty-five percent) training settings. The study did not investigate,

however, which method(s) of instruction would have been chosen for train-

ing persons with handicaps when the need for labor diminishes.

AA. <u>Uniformity</u> - the extent to which all trainees should accomplish
like tasks in a similar manner.

In Figure 4, Illustration AA, the results indicate the respondents

believe that greater uniformity of trainee job/task performance can best

be attained through on-the-job training [Q. 7c(2)]. Unfortunately the

study did not explore the reasons why the respondents strongly believe

OJT provides the best opportunity for standardization of training. One

reason may be that the skills typically acquired in a classroom/laboratory

setting do not mirror the tasks needed on the job.

Research Questions and Hypothesis

<u>Research Question One</u>. What criteria are currently used for deciding

if the handicapped are best taught a skill on-the-job or best taught in

a school-like setting? The analyzed data from both the first and second

interviews were used to identify these criteria. In the preceding section

of this chapter twenty-five of the twenty-six criteria tested were identified

using the data from the first interview and the twenty-sixth criterion,
Solicitude, was identified using data from the second interview.

The second interview questionnaire was designed to collect data which
would permit the validation of criteria identified during the first inter-
view. This questionnaire used a seven point, Likert scale, "7: Always Used"
through "1: Never Used", which permitted a judgemental decision by the
respondent for each criterion. The results of the second interview are
reported in Table 4. These data were derived by responses collected on
the scale from point "5: Often Used" through point "7: Always Used", and
the frequency in which the criteria were chosen is reported in percent.
The data show that all twenty-six criteria were reported to have been
used by these respondents when they participated in the selection of the
training settings for persons with handicaps.

Table 4
Ranking Criteria by Use as Reported by Training Authorities
N=51

Re: No.	Criteria*	Rank (%)
8	Evaluation	84
4	Complexity	80
7	Disabilities	76
13	Number of Personnel to be Trained	76
11	Instrumentality	75
19	Preferred Learning Modes	73
26	Uniformity	71
1	Abilities and Aptitudes	69
20	Prior Experience	69
21	Quality Control	67
6	Criticality	65
3	Capability	61
14	Passage of Time	57
15	Performance of Graduates	57
16	Persistence of Demand for Trained Personnel	57
5	Costs	53
2	Availability and Suitability of Physical Resources	51
9	Frequency	51
22	Reality of Atmosphere	49
12	Need to Minimize Training Time	45
25	State of Business Cycle	45
17	Philosophy and Policy	41
18	Ports of Entry	37
24	Solicitude	37
10	History and Pragmatism	33
23	Screening Device	20

* See pages 51 - 64 for descriptions.

7J

Research Question Two. How do these criteria vary with type of handicap?
To answer this question the data from the second interview were used. In
Tables 5, 6, 7, and 8, using both the statistical and data analysis guide-
lines which were followed to answer Research Question One and the cross-
tabulation procedures outlined in the Statistical Package for the Social
Sciences, the frequencies in percent are reported in rank order.

Table 5
Ranking Criteria by Use as Reported by Training Authorities Who Select
the Training Setting for Persons with Physical Handicaps
N=10

Re: No.	Criteria	Rank (%)
11	Instrumentality	90
4	Complexity	80
7	Disabilities	80
8	Evaluation	80
13	Number of Personnel to be Trained	80
20	Prior Experience	80
26	Uniformity	80
3	Capability	70
6	Criticality	70
16	Persistence of Demand for Trained Personnel	70
19	Preferred Learning Modes	70
21	Quality Control	70
1	Abilities and Aptitudes	60
15	Performance of Graduates	60
22	Reality of Atmosphere	60
25	State of the Business Cycle	60
12	Need to Minimize Training Time	50
14	Passage of Time	50
18	Ports of Entry	50
2	Availability and Suitability of Physical Resources	40
10	History and Pragmatism	40
17	Philosophy and Policy	40
5	Cost	30
9	Frequency	30
23	Screening Device	30
24	Solicitude	30

* See pages 51 - 64 for descriptions.

Table 6
Ranking Criteria by Use as Reported by Training Authorities Who Select
the Training Setting for Persons with <u>Cognitive</u> Handicaps
N=20

Re: No.	Criteria*	Rank (%)
8	Evaluation	90
7	Disabilities	85
4	Complexity	80
11	Instrumentality	75
13	Number of Personnel to be Trained	75
19	Preferred Learning Modes	75
3	Capability	70
5	Cost	70
9	Frequency	70
14	Passage of Time	70
21	Quality Control	70
26	Uniformity	70
1	Abilities and Aptitudes	65
6	Criticality	65
20	Prior Experience	65
15	Performance of Graduates	55
16	Persistence of Demand for Trained Personnel	55
22	Reality of Atmosphere	55
25	State of the Business Cycle	50
2	Availability and Suitability of Physical Resources	45
18	Ports of Entry	45
12	Need to Minimize Training Time	40
17	Philosophy and Policy	40
10	History and Pragmatism	40
24	Solicitude	35
23	Screening Device	10

* See pages 51 - 64 for descriptions.

Table 7
Ranking Criteria by Use as Reported by Training Authorities Who Select
the Training Setting for Persons with Visual Handicaps
N=14

Re: No.	Criteria*	Rank (%)
4	Complexity	86
8	Evaluation	78
1	Abilities and Aptitudes	71
13	Number of Personnel to be Trained	71
19	Preferred Learning Modes	71
26	Uniformity	71
11	Instrumentality	64
15	Performance of Graduates	64
20	Prior Experience	64
6	Criticality	57
2	Availability and Suitability of Physical Resources	57
7	Disabilities	57
21	Quality Control	57
14	Passage of Time	50
24	Solicitude	50
3	Capability	43
5	Cost	43
12	Need to Minimize Training Time	43
16	Persistence of Demand for Trained Personnel	43
17	Philosophy and Policy	43
22	Reality of Atmosphere	43
25	State of the Business Cycle	36
9	Frequency	28
10	History and Pragmatism	28
18	Ports of Entry	28
23	Screening Device	21

* See pages 51 - 64 for descriptions.

Table 8
Ranking Criteria by Use as Reported by Training Authorities Who Select
the Training Setting for Persons with <u>Auditory</u> Handicaps
N=7

Re: No.	Criteria*	Rank (%)
1	Abilities and Aptitudes	86
7	Disabilities	86
8	Evaluation	86
13	Number of Personnel to be Trained	86
2	Availability and Suitability of Physical Resources	71
4	Complexity	71
9	Frequency	71
11	Instrumentality	71
16	Persistence of Demand for Trained Personnel	71
19	Preferred Learning Modes	71
20	Prior Experience	71
21	Quality Control	71
3	Capability	57
5	Cost	57
6	Criticality	57
12	Need to Minimize Training Time	57
26	Uniformity	57
14	Passage of Time	43
15	Performance of Graduates	43
17	Philosophy and Policy	43
24	Solicitude	43
10	History and Pragmatism	28
22	Reality of Atmosphere	28
23	Screening Device	28
25	State of the Business Cycle	28
18	Ports of Entry	14

* See pages 51 - 64 for descriptions.

Tables 5 through 8 report the criteria by rank. The most used criteria has the highest ranking percent. Evaluation appears to have been the most used across all categories of handicap, and the Number of Personnel to be Trained the second most used. Screening Device appears to have been the least used. The conditions of handicap appear to influence the use of criteria, but to what degree is not apparent. The extent to which the use of the criteria are influenced by the condition of handicap will be deferred for future research.

Research Question Three. How should these criteria and their use be modified to increase client competence? The results reported in Tables 5 through 8 clearly amplify the need for the individualized use of the criteria by condition of handicap. The investigators believe there is a need for a larger population of respondents to confirm these results, however, the information which has surfaced from this study strongly suggests that each criterion should be used when selecting the training setting for the vocational development of handicapped persons.

Research Hypothesis One. To develop job competencies for persons with handicaps, the training settings which authorities choose most frequently will be a combination of training settings, e.g., classroom/laboratory instruction succeeded by on-the-job training or in conjunction with on-the-job training. In Figures 2, 3, and 4 it appears that on-the-job training was selected most frequently (fourteen selections) and a combination of training settings was a very close second (eleven selections). Therefore, the hypothesis is apparently false.

Worker Study

This section summarized in nine sub-sections the findings of this study. The data reported are sufficient to test the research hypothesis two and answer the research questions. The first two sub-sections will provide a detailed description of the respondents and the characteristics of the training programs which prepared them for their current jobs. Sub-sections three, four, five, six, and seven report information which provided the bases for answering research questions one through six, respectively. Sub-section eight addresses the research hypothesis and sub-section nine reports the identification of job placement criteria.

The study used a small population which permitted only a limited test of operational, statistical, and analytical procedures. Therefore, the results reported herein should be weighed with that factor in mind.

Respondents. The respondents for this study were twenty-six of sixty-seven persons identified and nominated by two advocate agencies for the handicapped in Champaign County, Illinois. Both agencies, by joint agreement with the investigator, extended invitations to the nominees. However, confidentiality controls of client records precluded the screening of respondents. Therefore, the information which was made available to the investigator was limited to the names and addresses of only those respondents who agreed to participate, after initial contact had been made by the nominating agencies concerned. Five of the nominees were queried by one of the nominating agencies in person because these

nominees were suspected to have literacy deficits. Sixty-two nominees
were mailed formal letters by the second nominating agency with a letter
from the investigator and an enclosed self-addressed post-card. If the
recipients of these letters agreed to participate in the study, they were
requested to return the post-card, signed, to confirm their agreement.
Eventually, twenty-four of the latter group and two of the first group
agreed to participate in the study, population N=26. From the time of
the initial contact (with the first of four agencies queried) to the final
interviews, a period of ten months and five days had elapsed.

In Figure 5 the respondents' county of employment is reported.
Thirteen of the respondents were employed in Champaign County; Cook
and Sangamon Counties were each represented by three respondents; DuPage
and Vermillion Counties were each represented by two respondents; and
Kankakee, Rock Island, and Macon Counties were each represented by one
respondent.

The respondents' demographic profile is reported by frequency data
and job complexity. The twenty-six respondents were divided into two
groups based on the complexity of their occupations, i.e., "most complex"
and "complex." This division was suggested by the results from Phase I
which reported that vocational competencies of handicapped persons are
developed in three categories: the complex, the less complex, and the
easy to learn. Therefore, the investigators were curious to see if the
respondents' complexity of occupation made a difference in the content of
the data collected. Thirteen respondents were assigned by the investigator
to the "most complex" category, and thirteen were assigned to the "complex"
category.

Figure 5. Respondents' location of employment (Worker Study).

The profile includes: first, the job identity of respondents (identified by the first six digits of the <u>Dictionary Occupational Titles'</u> Code and the job label); second, their mean age; third, their sex; fourth, their ethnicity; fifth, their type of impairment; sixth, their education/ training for their current employment; seventh, the respondents' family income during their period of dependence; eighth, the time in the respondents' life and employment cycle that their handicapping condition occurred; ninth, identification of pre-job employment experience; and tenth, respondents' views of which factors influenced their decision to be self-supporting and independent. (Note: parenthetical figures identify the respondents who <u>did not</u> participate in the second interview.)

Descriptor	Most Complex N=13	Complex N=13(-3)

1. Job (6-digit code & label)

		Most Complex N=13	Complex N=13(-3)
005 061	Civil Engr.	1	
076 107	Speech Path..	1	
090 227	College Fac. Mbr.	1	
091 227	Secondary Ed. Tchr.	2	
094 227	Special Ed. Tchr.	1	
099 167	Certification Select. Sp.		1(-1)
110-117	Corporate Lawyer	1	
159 117	Radio & TV Producer	1	
160 167	Budget Accountant		1
165 067	Public Relations Sp.		1
169 167	Office Manager		2
183 117	Production Supt.	1	
195 107	Case/Social Worker	3	
202 132	Transcription Secr. & Office Manager	1	
210 367	Account-Information Bookkeeper . .		1
213 685	Data Processing Operator		2
249 367	Evaluator		1
260 357	Agr. Cmsn. Agent		1(-1)
274 357	Bldg. Equip. & Sup. Mgr.		1
323 687	Housekeeper (Cleaning)		1(-1)
929 587	Nut-Bolt Assembler		1

Descriptor	Most Complex	Complex
2. Age (years)		
Mean	39	38
Range	28-46	28-50
3. Sex		
Female	5	4(-1)
Male	8	9(-2)
4. Ethnicity		
European - American	12	13(-3)
Indo - Aryan - American	1	
5. Impairment		
Physical	11	10(-2)
Cognitive		2(-1)
Visual		1
Multiple	2	
6. Education/training for		
Current employment (mode)		
Post-secondary (Classroom/Laboratory)	1	1
Post-secondary & Work Site (Combination)	11	7(-1)
Secondary & Work Site (Combination)		1(-1)
Work Site Classroom/Laboratory & Work Site (Combination)		2
Work Site (On-the-Job)	1	2(-1)
Sum total of training settings:		
On-the-Job	1	2(-1)
Classroom/Laboratory	1	1
Combination	11	10(-2)
7. Family income during		
Dependency (in thousands of dollars)		
Mean	<28	<27*
Range	<10-≧60	<5-≧60*

*Note: N= 12 for these statistics.

Descriptor	Most Complex	Complex
8. Occurrence of condition		
In life		
Birth	3	5(-3)
Pre-adolescence	2	4
Adolescence	4	4
Post-adolescence	4	
In employment		
After employment	1	3
Before employment	12	10(-3)
9. Pre-job employment experience		
Part-time employment	10	13(-3)
10. Factors which influenced		
the attainment of independence		
self-perception of ability	2	6(-2)
encouragement to work	1	1
negative comments by others	1	
encouragement by training authorities .	1	
encouragement by family members	8	6(-1)

The workers who were trained in combination settings, classroom/laboratory
and on-the-job, are the dominant respondents. Consequently, the data
collected may be biased by their affiliation with that method of training.

Characteristics of Respondents' Training Programs. The respondents'
descriptions of their respective training programs were obtained from
data collected during the first interview. These descriptions are
reported in this section as the "characteristics" of their training
programs. Using eight of the criteria [which are referenced (Re:) by
number and described in Chapter II] as description titles, the character-
istics of the training programs are identified using abbreviated questions
from the first interview questionnaire. The respondents' identification

of the characteristics of their training programs are indicated in per-

cent, based on the population, N=26, in the column titled "Agreement."

Descriptor	Agreement (%)

1. Re: #2. Availability and Suitability of Physical Resources

a. [My . . .] equipment and facilities were the same or better than the job setting. [Q. #6d(1)]   85

b. [My . . .] training tasks and job behaviors were generally identical. [Q. #6d(2)] . . .   77

c. [My . . .] best physical resources for training were: [Q. #6d(3)]

     On-the-Job   50
     Classroom/Laboratory   15
     Combination   35

2. Re: #3. Capability

a. [My . . .] on-the-job instruction was considered current. [Q. #6b(1)]   77

b. [My . . .] on-the-job instructors were generally qualified. [Q. #6b(3)]   73

c. [My . . .] classroom/laboratory instruction was considered current. [Q. #6b(2)]   62

d. [My . . .] classroom/laboratory instructors were generally qualified. [Q. #6b(4)]   62

3. Re: #9. Frequency

[The] behavioral skills [which I] learned were generally required on the job. [Q. #8a(2)] . . .   77

4. Re: #11. Instrumentality

[The] essential generic skills [for me] to learn job competencies were: (Q. #5f)

1. Math

     a. Read   92
     b. Write   100
     c. Count   92

2. Communications

     a. Literal comprehension   92
     b. Organize ideas   92
     c. Express or speak fluently   92

Descriptor	Agreement (%)

5. Re: #12. Need to Minimize Training Time

[The] average number of months [for me] in
training to obtain skills for the job:
[Q. #7c(1)]

    Mean: 39 months
    Range: 1-119 months   96

6. Re: #13. Number of Personnel to be Trained

[The] average number of trainees in training
[with me] at one time: [Q. #7a(1)]

    Mean: 100
    Range: 1-650   77

7. Re: #23. Screening Device

[I was] screened before completing training.
[Q. #8f(1)]   81

8. Re: #27. Uniformity

Minimum emphasis was placed on [my] behavior
being uniform.[Q. #8c(1)]   57

Research Question One. What criteria do handicapped workers report
were used for deciding the training setting for development of their job
competency? To answer this question the data collected with the second
interview questionnaire on the scale "7-Always Used to 1-Never Used" were
analyzed. This analysis is reported in Table 9 from responses collected
on the scale in categories: 5-Often Used; 6-Very Often Used; and 7-
Always Used.

The frequency in which the criteria were used by the respondents'
training authorities are ranked in percent. It appears that all twenty-
six criteria were used to some degree when the training setting was
selected for this group of respondents.

Table 9

Percent Rankings of Criteria by Use During the
Selections of the Workers' Training Settings
N=23

Re: No.	Criteria*	%
1.	Abilities and Aptitudes	65
8.	Evaluation	65
10.	History and Pragmatism	65
4.	Complexity	57
17.	Philosophy and Policy	57
7.	Disabilities	52
11.	Instrumentality	52
16.	Persistence of Demand for Trained Personnel	52
25.	State of the Business Cycle	52
5.	Costs	48
9.	Frequency	48
20.	Prior Experience	48
21.	Quality Control	48
22.	Reality of Atmosphere	48
26.	Uniformity	48
13.	Number of Personnel to be Trained	43
15.	Performance of Graduates	43
18.	Ports of Entry	43
3.	Capability	34
6.	Criticality	34
19.	Preferred Learning Modes	34
23.	Screening Device	34
14.	Passage of Time	30
2.	Availability and Suitability of Physical Resources	23
24.	Solicitude	23
12.	Need to Minimize Training Time	13

* See pages 51-64 for descriptions.

Research Question Two. How do these criteria vary with type of handicap? Since the population was dominated by persons with physical handicaps (approximately 88%), this research question will be considered in a future study.

Research Questions Three and Four. How do these criteria vary with the level of complexity of training, and how do these criteria

vary with the job for which trained? To answer these questions the investigator assumed that the training settings which were reported by the respondents led to their current jobs. Therefore, the respondents identified to be in the most complex jobs were presumed to have been prepared for their jobs in training settings where the subject content was "most complex." Also, it was presumed that the respondents identified to be in the complex jobs were prepared in training settings where the subject content was "complex." In Table 10 using data collected in the second interview on the scale 7-Always Used to 1-Never Used, the calculated means of each criterion are compared by two groups of respondents: the most complex job group and the complex job group. The mean difference between each criterion of the two groups has been calculated and ranked.

The data show that nineteen of the criteria were more frequently used for the most complex job group than for the complex job group, when their training settings were chosen, and seven of the criteria were more frequently used for the complex job group. However, since the jobs of these respondents were far above average in complexity and their responses to questions appeared to show that the two groups came from two populations with unequal means and unequal variances, a t-test was conducted to see if there was a significant difference between the two groups' means. The results were: the t-score for the difference was plus 3.38359 for a two tailed test at the .003 level with 25 degrees of freedom. Therefore, the investigator's hypothesis was tenable. One of three messages may be implied by these results. First, the majority of the criteria were more frequently used for making decisions about the training settings for persons who were preparing for entry into more complex jobs, or second,

Table 10

Ranked Mean Difference on the Use
of Criteria by Complexity of Job
N=23

Re: No.	Criteria*	Job Most Complex	Complex	Mean Difference
8.	Evaluation	6.00	4.10	1.90
22.	Reality of Atmosphere	5.00	3.40	1.60
17.	Philosophy and Policy	5.38	3.80	1.58
16.	Persistence of Demand for Trained Personnel	5.15	3.70	1.45
3.	Capability	4.08	2.90	1.18
18.	Ports of Entry	4.46	3.40	1.06
6.	Criticality	4.62	3.60	1.02
4.	Complexity	5.08	4.10	.98
5.	Costs	4.31	3.40	.91
1.	Abilities and Aptitudes	5.15	4.30	.85
24.	Solicitude	3.38	2.60	.78
21.	Quality Control	4.62	4.00	.62
7.	Disabilities	4.69	4.10	.59
25.	State of the Business Cycle . .	4.51	4.10	.51
15.	Performance of Graduates	3.85	3.40	.40
2.	Availability and Suitability of Physical Resources	3.77	3.40	.37
14.	Passage of Time	3.31	3.00	.31
20.	Prior Experience	4.46	4.20	.26
26.	Uniformity	4.15	4.10	.05
23.	Screening Device	2.85	3.00	-.15
9.	Frequency	4.08	4.40	-.32
13.	Number of Personnel to be Trained	3.85	4.20	-.35
19.	Preferred Learning Modes	3.46	3.90	-.44
11.	Instrumentality	4.08	4.70	-.62
10.	History and Pragmatism	4.46	5.20	-.74
12.	Need to Minimize Training Time .	2.62	3.40	-.78

* See pages 51-64 for descriptions.

persons in the most complex job group are far more aware of what criteria
were used when their training settings were chosen, or third, the complex
job group members were not considered as "special folks" and therefore

received fewer "strokes" that the most complex group members when their training settings were chosen.

Research Question Five. What modifications to these criteria are recommended and why? Using data from the second interview questionnaire, the responses are compared between the two scales, i.e., the scale 7-Always Used to 1 - Never Used, is compared with the scale 5 - Always Used to 1 - Never Used. In Table 11 the ranked percent of total responses which were recorded in the 5 - Often Used, 6 - Very Often Used, and 7 - Always Used on the scale 7 to 1 and the percent of total responses which were recorded in the 4 - Often Used and 5 - Always Used on the scale 5 to 1 are compared. A positive difference between the two responses indicates that the respondents believed there was a need for more frequent use of the criterion in question. A negative difference indicates that less emphasis should be given to this criterion. A null indicates that the criterion was used appropriately. The responses indicate that the respondents believe there is a need for a greater emphasis of the criteria as ranked, when training settings are chosen. That is, there is a need for greater emphasis on seventeen of t. .: ^ia (Re: No. 2, a 42% difference to Re: No. 24, a 4% difference) and a less.. need for seven of the criteria (Re: No. 12, a -4% difference to Re: 10, a -31% difference). The investigator believes the cited seventeen criteria were seldom considered when the training settings for these workers were chosen.

Research Question Six. Which method of training do handicapped workers feel had the greatest positive influence upon individual placement or opportunities for advancement? Using three of the criteria