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CAREER EDUCATION FOR MODERATELY MENTALLY RETARDED
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AND TEACHER ATTITUDES

DISSERTATION

Presented in Partial Fulfillment of the Requirements
for the Degree Doctor of Philosophy in the
Graduate School of The Ohio State University

by

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The Ohio State University

1978

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Faculty for Exceptional Children
In Memory

of

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CHAPTER I

INTRODUCTION

Background

Career education has been called a "national movement" (DHEW, 1972), a "revolution" (Marland, 1972), a "call for reform" (Marland, 1976), and "an idea whose time has come" (Hoyt, 1974; Marland, 1973). Although the concept has evolved through history, its emergence as a national priority is a phenomenon of the 1970's.

Another educational priority that has emerged in recent years is that of appropriate and equal educational opportunity for the handicapped. The coincidental culmination of these movements sets the stage for an investigation of their mutual interaction.

The underlying philosophy of career education has two components (Hoyt, 1974): a) that human happiness is a function of a feeling of self-worth and that work is an essential ingredient in this feeling; and b) that success in work depends not only on job skills but also on the attitudes, values, and abilities which predispose an individual to want to work productively, and which influence
his ability to function. (It should be noted that "work" in this context is not limited to gainful employment, but encompasses all conscious effort aimed at producing benefits for oneself and/or others.)

Of the many definitions of career education available, the one that has probably received the most national attention was offered by Hoyt (1975):

Career education is the total effort of public education and the community to help all individuals become familiar with the values of a work-oriented society, to integrate these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual. (p. 15)

The career education movement, though a relatively recent phenomenon, has generated considerable momentum and support. It has been endorsed by a number of professional organizations, listed as a priority by the Bureau of Education for the Handicapped, and incorporated into the programming of approximately 60% of this nation's school districts (Marland, 1976).

Statement of the Problem

Although the career education movement has come of age, Hoyt (1975) cautions that its long-range success will depend upon the extent to which we are able to make basic changes in the attitudes of students, parents, teachers, and the community. He argues that attitudinal change is prerequisite to any successful career education program.
The issue of attitudes toward career education for the handicapped is a complex one, involving a combination of three separate components: attitudes toward a career education approach in general, attitudes and expectation levels for the handicapped, and attitudes toward the application of career education concepts to a handicapped population.

Attitudes toward career education has become a popular research topic in recent years. Studies have investigated the attitudes toward career education held by teachers (Clark, 1974; Jacobsen, 1973; Phillips, 1975; Riccuiti, 1973; Ryal, 1974; Smith, 1974), school administrators (Barth, 1974; Boyte, 1974; Jones, 1974; Phillips, 1975), school board presidents (Conley, 1973; Phillips, 1975), college faculty (Hansen, 1974; Cincelli, 1974), parents (Brown, 1974; Clark, 1974; Jarmer, 1974; Wilkerson, 1974), and members of State Advisory Councils on Vocational Education (Roberts, 1975). These studies were based on a variety of definitions of career education and they employed a wide range of instruments and techniques, thus making it difficult to draw meaningful generalizations across these diverse populations.

Hoyt focuses on the attitudes of parents and teachers as the most relevant factors in the success of career education. In discussing the importance of parental attitudes toward career education, Hoyt (1975) points out that career
education policies are highly susceptible to parental influences and that parents must become partners in career education in order for the school system's efforts to be successful. Clearly partnership in a career education program requires that very positive attitudes be held by the parents. Hoyt (1974) cites specific attitudinal changes which will be required of parents:

1. Parents must view their homes as a place for work and must help their children acquire this view.

2. Parents must develop respect for alternatives to college education and professional occupations.

3. Parents must accept and endorse the inevitability of work as an essential part of their children's lives, and in so doing, must fight the impulse to do things for their children in an attempt to make life easier for them.

Of equal importance are the attitudes of teachers toward career education. Again Hoyt (1975) makes the point emphatically when he states that meaningful educational changes cannot occur in American education without the active involvement, support, and internal commitment of the classroom teacher. Career education asks teachers to change their philosophies, their competencies, and their teaching methodologies. Clearly positive attitudes toward career education will facilitate this process.
The second component in the issue of career education for the handicapped is that of attitudes toward the handicapped. The study of attitudes toward disabled persons appears to be a research topic of more than passing interest. Though such studies did not appear in the literature with great frequency until after World War II, they have become relatively commonplace in publications dealing either with attitudes or with the handicapped. Attitudes toward disabled persons have been studied in a number of ways. Cohen (1963) investigated employer attitudes toward disabled persons, and Ellum (1975) studied those of vocational educators toward handicapped students. A cross-cultural study was undertaken by Iseng (1972), and a study conducted by Wilson, et al. (1968) measured the attitudes of gifted adults, future rehabilitation counselors and rehabilitation professors toward disabilities. Even the attitudes of one group of disabled persons toward their own disability have been studied (Schroedel & Schiff, 1972).

Despite the relative popularity of studies of attitudes toward disabled persons, few efforts have been directed at examining attitudes toward a specific disability group within pre-established parameters. In one of the few studies of this type reported in the literature, Nickoloff (1962) found that a large majority of the elementary and secondary school principals he surveyed indicated that they
would accept as a student teacher or full-time teacher an individual who used a crutch or an artificial limb. Only 12% of the same respondents stated that they would accept a blind person for the same position, and 19% implied that they would accept a deaf person. Studies of the type conducted by Nickoloff (1962) appear to have further-reaching implications than do general studies of attitude toward disabilities because they yield information relevant to specific disability areas rather than nebulous opinions pertaining to the generic descriptions "handicapped" or "disabled." Further, the findings of a study whose topic is highly specific would be more likely to generate information that could be employed in the development of a program of attitude change.

Although the separate questions of attitudes toward career education and attitudes toward the handicapped have received considerable attention in the literature, the question of attitudes toward career education for the handicapped has not been addressed. This paucity of literature was noted during a 1975 conference on research needs related to career education and the handicapped in which "attitudes" were listed as a top priority (Barron, 1975). The attitudes of family and educational personnel were targeted as important areas for research, along with the attitudes of the community, employers, and the handicapped individuals themselves.
The conference report explains that present negative attitudes appear to be based on erroneous impressions and on a lack of tolerance for the handicapped person's difference. The report calls for research to determine the present level of awareness about the handicapped, to develop increased understanding of handicapping conditions, and of the ways in which handicapped persons can become part of the total socio-economic system.

Hoyt (1975) agrees that negative attitudes toward career education are rooted in misconceptions and suggests that parents and teachers must be educated and motivated to accept the career education approach. There is evidence (Clark, 1974; Garber, 1973; Garrison, 1974; Jacobsen, 1973) to suggest that attitudes toward career education can be shaped through a variety of inservice techniques including speakers, workshops, and reading materials. Hoyt (1975) and Barron (1975) suggest that materials and training methods must be developed and field tested in order to accomplish this goal.

**Purpose of the Study**

This study was designed to respond to some of the research needs identified by Hoyt (1975) and Barron (1975) as they apply to a specific handicapped population: moderately mentally retarded students. The first purpose was to determine what attitudes are expressed by parents and
teachers/instructors of moderately mentally retarded individuals toward career education. These expressed attitudes were studied to determine whether differences exist between parent and teacher/instructor responses, and whether a relationship exists between the attitudes of parents and teachers/instructors and the age of the student with whom they were involved.

The second purpose was to determine whether parent and teacher/instructor attitudes could be improved through exposure to selected reading materials.

**Definitions**

For the purposes of this study, the following definitions are offered:

**Career Education** is an approach to education that emphasizes the development of vocational, social, and recreational skills. The basic goal of a career education program is to make work possible, meaningful, and satisfying for each individual. Through career education, students gain a better understanding of themselves and the world of work, and develop skills and habits that will enable them to relate to other people and to use their time productively.

**Moderately Mentally Retarded** persons are substantially below average in their intellectual functioning and adaptive behavior. They may demonstrate social and
emotional immaturity, deficient communication skills, and limited skills in dealing with complex ideas. These individuals are frequently called "Trainable Mentally Retarded," and are usually educated in special programs or classrooms.

**Research Questions**

This study addressed the following research questions:

1. Do parents and teachers/instructors of moderately mentally retarded students hold positive attitudes toward career education for these students?

2. Do parents and teachers/instructors manifest similar attitudes toward career education for their moderately mentally retarded students?

3. Can parent and/or teacher/instructor attitudes toward career education for moderately mentally retarded students be improved through exposure to selected reading materials?

4. Does a relationship exist between parents' expressed attitude toward career education and the age of their moderately mentally retarded child?

5. Does a relationship exist between teachers'/instructors' expressed attitude toward career education and the age of their moderately mentally retarded students/clients?
CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This chapter will explore the career education concept: what it is, how it developed, and how it applies to a specific handicapped population -- moderately mentally retarded students.

The first section will review the literature in an attempt to establish a rationale for the emergence of the career education movement, to document the chronological highlights of its development, and to define the current "state of the art" in career education.

In the second portion of the review, the career education concept will be defined through an exploration of its underlying philosophy and a comparison of the many definitions that have been offered. Because of the complex and comprehensive nature of the concept, career education is more easily understood through an expanded and operationalized definition and discussion. Thus, the career education concept will be discussed in terms of the various educational phases, occupational clusters, and delivery models incorporated in its general programmatic application.
Next, the application of the career education concept will be reviewed in a more specific light. Selected literature relevant to career education for the handicapped will be reviewed and analyzed.

Finally, the chapter will focus on the curriculum and philosophy of education for moderately mentally retarded learners in order to demonstrate its compatibility with the career education approach. An expanded curriculum model will be offered as a conceptualization of the merger of the career education concept with the curriculum for moderately mentally retarded learners.

Emergence of Career Education

Rationale

Many interpretations have been offered relative to the emergence of the career education concept. Marland (1976) points out that the idea of "growing up to work" is an ageless, underlying concept of civilization. Over the years, however, education came to mean schooling -- something that happens in school buildings -- while growing up to work remained outside the formal education process. Regardless of how the separation of education and work actually occurred, the career education movement is a call for reform and a reunion of the academic and occupational worlds.
The nebulous concern for career education identified early in this decade has blossomed into a more fully formulated concept and a national educational priority. As a witness to the phenomenon of the career education movement, Swanson (1972) postulated five influences or explanations for its emergence.

The first contends that career education is a chapter in the developmental history of vocational education. Vocational educators might trace its origin to the vocationally- and career-oriented amendments to the Morill Act, and the expansion of public education at the end of the nineteenth century. These developments were followed by state and federal legislation throughout the 1900's which developed and expanded the interpretation of vocational education to include career choice, job training, and long-range planning.

A second approach suggests that career education has emerged as a natural consequence of advances in the "state of the art" in education. Knowledge of the developmental stages of children, the role of task analysis in learning, and the psychology of careers has been compiled to form a conceptual base for career education which did not previously exist.

A third influence is that of the National Advisory Council on Vocational Education. In its reports and recommendations, the Advisory Council took a diagnostic and
prescriptive role which demanded a response. In its call for a complete reform of the educational system to include career education, the Council identified many of the essential elements of the career education approach.

The fourth influence is an international one which began with the establishment of an exemplary system in Sweden in 1967, and culminated in a USSR-sponsored seminar on career education in 1970.

Swanson's final explanation gives credit to the U.S. Office of Education and various State Education Agencies for their leadership in developing a conceptual base for career education through grants for exemplary projects and further innovation.

Other explanations have cited the pressure of such societal and economic influences as our rapidly developing technology (Massey, 1974), increased percentages of the population enrolled in the schools (Massey, 1974), and the complex problems of unemployment (Worthington, 1972; Blum, 1974; Sarasin, 1977). Failure within the educational system to set goals and to prepare students adequately for life roles has also been cited as a major influence (Marland, 1972; Worthington, 1972; Blum, 1974).

Rather than viewing these alternative theories as rivals, it seems reasonable to assume that these and other influences functioned collectively to bring the current career education movement into being. The chronology
offered below will highlight some of the developments which contributed to the emergence of the concept of career education.

**Chronology**

Although education is primarily a state responsibility, federal funding became available to colleges in the 19th Century and in 1917 the Smith Hughes Act established a precedent for federal grant programs for non-collegiate education. The National Vocational Educational Acts were first enacted in the same year. This early assistance was directed toward agriculture.

The post-World War II years brought dramatic changes in the national economy and in our needs for skilled manpower. Although vocational education was already established, Quie (1977) suggests that it failed to keep abreast of these changes. The emphasis on college education remained heavy and young people entering the world of work were ill-prepared to deal with its demands.

In 1951, the National Manpower Council was established at Columbia University under a grant from the Ford Foundation for the purpose of studying manpower problems and contributing to the development and utilization of manpower resources. The Council issued several publications on vocational education. In a 1954 recommendation, the Council stated that Boards of Education and school officials
should "concentrate on achieving the key purposes of secondary education -- to prepare the individual for citizenship, for a worthwhile life, and for work," and called upon school officials to take the lead in coordinating community efforts toward this goal (Bailey and Stadt, 1973).

Federal interest and influence continued and by 1957 when the National Defense Education Act provided direction for education for the world of work, vocational education was more heavily influenced and subsidized at the federal level than was any other area of education.

But the 1950's had brought Sputnik, the race for space, and the beginnings of the cry for excellence in education. In recognition of the technological changes which had occurred in virtually all occupations, President Kennedy called for a review and re-evaluation of the National Vocational Education Acts and established a Panel of Consultants in 1961. This Panel conducted and commissioned a series of studies and issued a report in 1963 (Bailey and Stadt, 1973).

This report accused vocational education programs of a failure to respond to social and economic changes, an insensitivity to labor market conditions, and a failure to serve diverse populations. The Panel proposed an agenda for action at the secondary level of vocational education programs. Many of these recommendations were incorporated in the 1963 Vocational Education Amendments (Bailey and
The Vocational Education Act of 1963 (Public Law 88-210) expanded on earlier Acts in an effort to revitalize vocational education. It permitted greater flexibility in Local Education Agencies to serve the occupational needs of a wide range of people; it eliminated specific categorical limitations; and it broadened programs to include preparation for any gainful employment. As a means of monitoring the success of this Act, the National Advisory Council on Vocational Education was established to assure that the Commissioner of Education would have input from management, labor, and the public regarding vocational education programs. Martin Essex was appointed chairman of this body in 1966 by the Secretary of the Department of Health, Education, and Welfare, with the charge of reporting to Congress by January of 1968 on the progress of the Act.

The Essex report made several recommendations including greater emphasis on research, innovation, teacher training, and the needs of the disadvantaged and handicapped. This report became the basis of the 1968 Amendments (Massey, 1974; Quie, 1972).

The Vocational Education Amendments of 1968 (Public Law 90-576) provided for exemplary programs and funded USOE leadership efforts. One product of these efforts was the development of 15 career clusters by the Bureau of Adult, Vocational, and Technical Education. This Act also
specified sums of money to be spent on programs for the disadvantaged and handicapped and it created permanent State and National Advisory Councils on Vocational Education.

In its first of a series of reports, the National Advisory Council discussed the failure of vocational education to meet the needs of significant percentages of students. Three reasons were cited for this failure: a) a national attitude that "says vocational education is for somebody else's children," b) the need for exploration of the world of work in the elementary schools, and c) inadequate funding (Bailey and Stadt, 1973).

In the second and third reports, the Council identified major concerns and made recommendations for action. Among the recommended actions were a) to require communities to develop coordinated plans for reducing both the flow of untrained youth and unemployed adults, b) to recognize that employment is an integral part of education, c) to give priority to programs for the disadvantaged without separating them from the mainstream of education, and d) to encourage parents and students to participate in the development of vocational programs.

Under Part D of the 1968 Amendments, Exemplary Programs and Projects, the USOE sponsored nine regional and one national conference. The conference paper most influential in the evolution of career education was submitted by Herr
(1969). This paper advocated the development of marketable skills for all students, and the direct and systematic development of students' attitudes and knowledge about themselves, about occupational and educational alternatives, and about decision-making abilities which relate to vocational identity and choice. Herr argued for appropriate experiences at each level of education and stressed the importance of a career orientation within the first ten years of life. Herr's paper succinctly tied together career development theory, the behavioral objective approach, and the reorientation of vocational education (Bailey and Stadt, 1973).

All of the recommendations made by the National Advisory Council in 1969 were summarized by Bottoms and Matheny. Among the recommendations most salient to the development of career education were that:

-- Vocational experiences should be incorporated in the teaching of basic academic skills.
-- Each student, at the point of separation from school, should be provided with a marketable skill as well as basic educational preparation.
-- Career development efforts should begin at the elementary school level. Significantly more attention must be concentrated at the elementary level upon attitude development, self-awareness, and decision-making.
-- Career development opportunities must be sufficiently varied so as to suit the interests and needs of all students.

-- Career development experiences should be sequentially organized from the elementary grades through high school.

-- Schools should assume responsibility for all pupils until they successfully make the transition from school to work, regardless of the point at which they choose to leave school.

-- Schools should more fully cooperate with business and industry in the development of basic habits of industry on the part of students. (1969, pp. 23-26)

In a conference discussion paper entitled, "Vocational Education for the 1970's," the Division of Vocational and Technical Education took the position that vocational education should be lifelong career development for each person (Bailey and Stadt, 1973). The objectives stated in this paper echoed and expanded upon the recommendations of the National Advisory Council.

In 1971, Sidney P. Marland, Jr., the Commissioner of Education, introduced the term "career education" and gave support to its development from the discretionary funds available to him. In September of that year, Marland channeled $9 million into the development of four conceptual models for career education: school-based, employer-based,
home/community based, and rural/residential-based. These models were tested in a number of funded projects and their major features were described in a USOE (1972) briefing paper. The models are also described by Marland (1971), Goldhammer and Taylor (1972), Bailey and Stadt (1973), Hoyt (1974), and Massey (1974) and are outlined elsewhere in this paper.

These models demonstrate the broad scope of the career education concept and the need for involvement and cooperation among a variety of community agencies and resources, including the schools.

By 1971 professional support of career education was well established. The National Education Association adopted a resolution in 1971 that strongly endorsed career education for all children in the schools and for out-of-school youth and adults, and the American Vocational Association had also established a program for support to and leadership of the career education movement.

The Education Amendments of 1972 (Public Law 92-318) held vocational-technical education as its primary concern. The Act established career education as one of its first priorities for research and demonstration systems.

The Act made two major administrative changes by establishing an Educational Division in the Department of Health, Education and Welfare, headed by an Assistant Secretary rather than a Commissioner; and by establishing
the Bureau of Occupational and Adult Education in the USOE. These provisions afforded new status to education and to occupational education in particular (Bailey and Stadt, 1973).

The 1972 Amendments extended many of the provisions of the 1968 Amendments, including the Education Professions Development Act, which provided career education training programs for teachers and other school personnel.

Title I of Part B, the Occupational Education Programs, though never funded, addressed and supported all of the theory, philosophy, and implementing measures of career education. This, according to Marland (1976), was really the start of the current movement.

The Deputyship created for Occupational and Adult Education was given major responsibility for the promotion and implementation of the career education concept, and the stage was set for the creation of a Career Education Office within the USOE.

The Education Amendments of 1974 (Public Law 93-380) created both the Office of Career Education and the National Advisory Council for Career Education, whose specific charge was to keep Congress informed of the progress resulting from this Act. The 1974 Amendments directly established career education for the first time with a first-stage authorization of $10 million for experimentation and demonstration.
In 1976 the Educational Amendments (Public Law 94-482) reaffirmed career education, extended its scope beyond elementary and secondary education, and doubled the funding authorization. Funding remained within the experimental-demonstration mode, however.

Efforts to establish a separate funding base for career education at the program level culminated in an Act recently signed into law by President Carter: Public Law 95-207, The Career Education Incentive Act of 1977. The law provides a $325 million authorization over a five year period. These funds will be channeled to the state for administration, leadership, technical assistance and model programs, and through the state education agency to local education agencies for career education programs and in-service training.

Both the House and Senate versions of the bill (H.R. 7 and S.1328) as well as the final Act, included specific reference to the inclusion of the handicapped in career education programs. A definition of the term "handicapped" is included in the law (Sec. 15 (B)(3)).

National career education legislation has become public law, but the appropriation bill is still forth-coming. If this legislation receives substantial funding, it will officially seal the merger between academic and occupational preparation and will provide structure and direction to career education efforts throughout the nation. Without
an appropriation, the legislation will lose impetus but at least it will have brought national attention to the career education effort and will perhaps lay the groundwork for future developments.

Hoyt (1974) and Marland (1972) caution their readers that while federal legislation can provide leadership, direction, and support, it cannot effect real and lasting change in our educational system. In order for the career education concept to become a vital part of our educational programming, it must be embraced by the teachers, students, and parents involved. Further, a commitment will be needed from the business-labor-industry community. In 1974 Hoyt stated that due to the newness of the concept, there is little evidence of the necessary attitudinal changes. There is evidence, however, to indicate that there is growing support of the career education concept.

State of the Art

Career education is a concept with almost universal appeal and a wide range of support. Marland cites as evidence of vast public support a 1973 Gallup poll in which 90% of the respondents agreed that schools should "give more emphasis to study of trades, professions, and business to help students decide on their careers." The results of the 1976 Gallup poll sustain this expressed demand from the people, placing development for work as "the biggest priority of the schools in the minds of the people."
In his remarks before the House of Representatives on the H.R. 7 hearings (1977), Representative Ford included in the list of organizations supporting career education the U.S. Chamber of Commerce, the National Education Association, the National Association of Chief State School Officers, the United Auto Workers, the American Vocational Association, the National Advisory Council on Vocational Education, the Association of Secondary School Principals, the General Motors Corporation, the American Association of Junior Colleges, the College Entrance Examination Board, and the National Institute of Education (p. H3006). To this list, Bailey and Stadt (1973) add the National Manpower Council and the Panel of Consultants on Vocational Education.

In further testimony, Ford (1977) stated that the National Institute of Education had earmarked 20% of its budget in support of career education research and demonstration and that the response has been strong at the state level as well. As of 1976, two-thirds of the states had adopted formal career education policies; 14 states had career education legislation; and 55 of the 57 states and outlying areas had state career education coordinators, 27 of them state-supported.

Marland (1976) reported that a survey was mandated by Congress in 1974, conducted by the American Institutes for Research and reported early in 1976. This study concluded
that at least 60% of the American school systems were making at least limited efforts toward establishing career education programs, based on their belief that the concept is "important" or "absolutely essential" to their programming. Faculty development in career education was being provided in 57% of the school districts with 20% of the teachers involved in in-service training. Although the study reported that only 3% of our 17,000 districts met all the criteria of a complete and comprehensive career education program, Marland asserts that a good beginning has been made, especially in light of the size, diversity, and individuality of our educational system and the fact that the career education movement is a relatively recent phenomenon.

**Summary**

The career education concept, rooted in history, has been nurtured by the development of vocational education; by the actions of various professional organizations, advisory boards, and state and federal government; and by changes and shortcomings within education and society in general.

As the career education concept blossomed and became refined, the pattern was primarily one of action and reaction between various professional groups and advisory boards and the federal legislators. Through a series of Educational
Acts and Amendments, the following principles consistently emerged:

1. a broadening of the vocational education concept from an agricultural emphasis to preparation for many clusters of occupations,

2. an expansion of emphasis from the secondary school level to a birth-to-death approach with emphasis on the elementary grades,

3. the inclusion of all students, youth, and adults, including the college-bound, the disadvantaged, and the handicapped,

4. a reduction in the separation of academic and occupational education,

5. increased emphasis on the responsibility of the schools, in cooperation with the community to prepare students for work, and

6. an increase in federal support, both through funding and organizational leadership.

It should be noted that career education programs were developed in a number of states prior to the federal emphasis on programming. It was the influence of national involvement, however, that began to focus on comprehensive programming.

Career education has fully emerged as an educational priority with a broad base of support. The concept has been endorsed by numerous educational and business organizations, by the general public, and by most states and
school districts. The direction for further growth will be shaped by current legislation and the success of this movement will depend upon the attitudes and the depth of commitment felt by the educators, students, parents, and the business-labor-industry community.

The Career Education Concept

Definition and Philosophy

Although the underlying concept of career education has a long developmental history, the term "career education" has just come into popular use during this decade. Sidney P. Marland, Jr., then U.S. Commissioner of Education, is usually given credit for coining the term "career education" during a speech before the National Association of Secondary Principals on January 23, 1971. This date is often cited as the "birthdate" of career education.

Bailey and Stadt (1973), however, suggest that it was Marland's predecessor, James B. Allen, who first used the term one year earlier in a speech before the same group. Bailey and Stadt refer to Allen's speech as a "... little-known milestone in the evolution of career education in America" (p. 268). In an address entitled, "Competence For All as the Goal for Secondary Education," Allen stated:

It is the renewed awareness of the universality of the basic human and social need for competence that is generating not only increased emphasis today on career education but a whole new concept of its character and its place in the total educational enterprise. (1970)
Bailey and Stadt (1973) do concede that it was Marland who first spoke directly to the point of career education, and who was responsible for providing the impetus to the movement. In his 1971 address, "Career Education Now," Marland proposed "... that a universal goal of American education, starting now, be this: that every young person completing our school program at grade twelve be ready to enter higher education or to enter useful and rewarding employment."

Soon after the career education concept was officially introduced by Marland, the task of conceptualizing and refining it was undertaken by Kenneth B. Hoyt, Associate Commissioner of Education in the U.S. Office of Education. Like Marland, Hoyt had been associated with the career education movement before it received its name and became recognized as a movement. It is Hoyt's work that is central to any discussion of the philosophy and objectives of career education.

The underlying philosophy of career education, in Hoyt's view (1974), has two components. The first is based on Maslow's (1954) contention that human happiness is a function of a feeling of self-worth and that work is an essential ingredient in this feeling. The second is that success in work depends not only on job skills but also on the attitudes, values, and abilities which
predispose an individual to want to work productively and which influence his ability to function.

A more complete philosophical base for career education was constructed by Hoyt (1975) through his discussion of the basic assumptions of the career education approach. Among these assumptions are:

-- that career education is a developmental sequence of events which span the individual's entire life,
-- that "work" is a viable basis for the conceptualization of career education and that work includes both paid and unpaid efforts,
-- that career education is for all individuals,
-- that career education necessitates the involvement and cooperative efforts of education and the community and that it should reflect a close relationship between the schools and the world of work,
-- that the social objective of career education is to help each individual develop the desire to work, the skills necessary to do so and to engage in work that is socially beneficial, and
-- that the individual goal of career education is to make work possible, meaningful, and satisfying for each person throughout his lifetime.

Much has been written with respect to the philosophy and objectives of career education. The general (and
sometimes emotional) agreement among authors that career education is a timely, worthwhile, and much-needed endeavor often lends a crusade-like tone to the literature. It is difficult, after all, to disparage a movement dedicated to such ideals as competence, good work habits, increased opportunity, and a successful and satisfying life for all. The inattentive reader could easily mistake the philosophy of career education for a description of the American dream.

Like the American dream, career education has a "something for everyone" appeal which enables each person to interpret and define the concept to suit his own purpose. While agreement exists on a philosophical level, the concept of career education is so comprehensive and multi-faceted that it cannot be reduced to a concise and universally-accepted definition. In fact, several authors (Goldhammer and Taylor, 1972; Marland, 1973; Hoyt, 1975) have stated that a single, all-purpose definition is not even desirable. They maintain that career education is an evolving concept which is best interpreted and defined by the dialogue and interaction of the teachers, counselors, administrators, parents, and students involved in its development.

If variety and/or multiplicity of definitions is the objective, we have succeeded admirably. The literature is a labyrinth of conflicting and redundant definitions of career education. Definitions have been developed by
individual educators, by professional organizations, and by State Education Agencies. (Hoyt, 1975, lists a number of examples.) In 1972 the U.S. Office of Education collected the official definitions of career education then in existence. There were 19 at the time and the number has certainly grown since then.

In reviewing the available definitions of career education, Swanson (1972) found that five basic approaches have been used. The career education concept can be defined as a) a philosophical commitment, b) a set of essential components, c) the utilization of an educational delivery system, d) a series of educational levels, each with specific objectives, or e) a description of program outcomes (pp. 109-111). Swanson states that all of these approaches are mutually reinforcing, but that no single approach is complete or adequate.

In addition to the complexity of the concept and the number of alternative approaches to its definition, Hoyt (1975) points out that communication on the topic of career education is hampered by the use, on the part of many individuals, of outmoded definitions. To the extent that the definition of "work" is limited to paid employment, "education" limited to schooling, and "leisure" is considered to be synonymous with play, understanding of the definition of career education will be limited. Further, Hoyt identifies misconceptions that impede understanding and
acceptance. Those who assume that career education is an attempt to supplant all of education, that is, an attempt to limit college enrollment, or that it is a subterfuge for the expansion of vocational education will not be receptive to a comprehensive definition of career education.

Difficulty and confusion notwithstanding, it is often desirable and convenient to have a concise definition of the term. Hoyt (1975) offered a generic definition of career education by defining "career" as "the totality of work one does in his or her lifetime," and "education" as "the totality of experiences through which one learns." "Career education," then, is "the totality of experiences through which one learns about and prepares to engage in work as part of his or her way of living." (p. 20)

The definition that has received the most national attention was also written by Hoyt and is used in the USOE film and publication on career education:

Career education is the total effort of public education and the community to help all individuals become familiar with the values of a work-oriented society, to integrate these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual. (Hoyt, 1975, p. 15)

Upon consideration of his own and a variety of other definitions, Hoyt observed the following points of agreement:
-- that career education deals with preparation for work but includes more than specific job skill training,
-- that it should be experienced by all students from the elementary grades through high school, and
-- that career education involves a conscious effort on the part of the schools and other institutions within the community.

As would be expected in the case of so broad a concept and such numerous interpretations, Hoyt also noted basic areas of disagreement among definitions. The contended issues include:

-- the rationale for the emergence of career education,
-- the perception of long-range goals (economic preparation versus preparation for total life function and self-actualization, and
-- the extent to which career education should precede kindergarten and extend beyond high school.

Disagreement over the question of whether career education should encompass all or part of education seems to have been resolved. Career education is viewed as one important aspect -- but not the only aspect -- of the total educational process. Hoyt (1974) offers the following representation of the relationship of career education to the educational system, to vocational education, and to the community:
It is not surprising that the areas of definitional agreement are the more general, philosophically-based items, such as the idea that career education is for everyone. When an attempt is made to specify or operationalize the definitions, however, disparity abounds. (Does "everyone" include pre-schoolers and college graduates?) As a result, the definitions which are most universally accepted are those which remain on a general, philosophical plane, and discuss such nebulous concepts as "the totality of experiences" and "total life function."

In order to gain a better understanding of the career education concept, it is necessary to look at its components and at models that operationalize the definition.
Educational Phases

Career education is usually described in terms of sequential stages of growth or vocational maturation. Although there is variation in the terminology and the number of phases presented, authors describe a process which begins with a general introduction to the world of work, and becomes more specific in its focus throughout the educational process.

There is general agreement that the first phase is career awareness or motivation in which children are introduced to a philosophy toward work and to the primary work roles played by persons in society. Following this general orientation, students begin an exploration phase in which they investigate work roles they might consider important or possible for their own lives. During the teen-age years, students enter the preparation phase in which their focus narrows, and they ready themselves to make a vocational choice, learn specific job skills, and establish and maintain themselves in the world of work.

The sequential stages discussed by various authors are presented in Figure 2. The first four schemes delineate specific grade levels for each phase, while the last four depict a more general pattern, but there appears to be substantive agreement among the authors.
<table>
<thead>
<tr>
<th>Source</th>
<th>Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massey (1974)</td>
<td>Awareness, Exploration, Preparation, Placement</td>
</tr>
<tr>
<td>Bailey &amp; Stadt (1973)</td>
<td>Awareness, Accomodation, Orientation, Exploration and Preparation</td>
</tr>
<tr>
<td>Ohio Department of Education</td>
<td>Motivation, Orientation, Exploration, Voc. Ed. &amp; Pre-Pro.</td>
</tr>
<tr>
<td>Klinkhamer (1973)</td>
<td>Awareness → Orientation &amp; Exploration</td>
</tr>
<tr>
<td>Goldhammer &amp; Taylor (1972)</td>
<td>Awareness → Exploration → Preparation</td>
</tr>
<tr>
<td>Davenport (1973)</td>
<td>Awareness → Exploration → Preparation</td>
</tr>
</tbody>
</table>

Figure 2: A Comparison of Career Education Phases Discussed in the Literature.
The Cluster Concept

There is general agreement in the literature that career awareness is an important first stage in the students' career education experience. Students should be exposed to the wide variety of career opportunities available in this country. Simple as it may sound, this task becomes monumental when one considers that some 20,000 careers have been identified by the U.S. Department of Labor. In order to help learners approach career awareness and exploration, many educators have turned to a cluster concept, in which all occupations are conceptually subsumed into categories.

There are differences of opinion as to the ideal number of categories or clusters, the most appropriate time to introduce these clusters, and the optimal number of clusters to be studied at a given time, but there is consensus that a clustered grouping is needed (Blum, 1974).

Occupations can be clustered by numerous criteria, including clustering by industry, by product, by physical or psychological characteristics of the worker, and by job content and skill transferability. Teachers might find different groupings useful at various instructional stages. For example, occupational clusters developed along industry lines are particularly useful at the awareness and orientation stages of career education. For purposes of
specific job preparation, however, the systems based on transferable skills might be more functional (Hoyt, 1974).

Another approach was taken by the State of Oregon, a leader in the development of the career cluster concept, which based its 13 clusters on a statewide survey of the occupations that were in demand at the time (Blum, 1974). Proponents of this approach might argue that it enables the school to better prepare students for the current job market.

Perhaps the best-known and most widely used clustering system is the one designed by the U.S. Office of Education (DHEW, 1969). This is an industry-based grouping and it consists of the following 15 clusters:

-- Agri-business and natural resources
-- Business and office
-- Communications and media
-- Consumer and homemaking education
-- Construction
-- Environmental control
-- Fine arts and humanities
-- Health
-- Hospitality and recreation
-- Manufacturing
-- Marine science
-- Marketing and distribution
-- Personal services
-- Public services
-- Transportation

The USOE proposed that elementary school children be exposed to all 15 clusters as they develop awareness of the world of work. At the junior high school level, they should narrow their focus and select fewer clusters for exploration; and high school preparation should involve the selection of, and training in, one occupational cluster.

Blum (1974) described several alternative clustering schemes. One was developed by the American College Testing Program (ACT) in its study of career development. In this system, the six clusters are based on the similarities of job duties rather than by industry or worker characteristics. The system attempts to help students identify occupations on the basis of their interest and abilities. The ACT clusters are:

-- Business Sales and Management
-- Business Operations
-- Technologies and Trades
-- Natural, Social, and Medical Science
-- Creative and Applied Arts
-- Social, Health, and Personal Services

Another clustering system discussed by Blum (1974) is the very complex system developed for the Comprehensive Career Education Model (CCEM) Project. In an attempt to blend three different methods of grouping occupations,
this model has three basic dimensions which interface with one another. One dimension is industry-based, and is designed for general curricular purposes such as career awareness and orientation. The second, or occupational group base, deals with the commonality of tasks, and is useful when the student begins actual skill development programs. The third dimension is based on worker characteristics and attitudes, and commonality of worker traits. This base is best suited for general guidance purposes in helping each student match his personal characteristics to those of workers in an occupational field.

The industry base of the CCEM system is adapted as illustrated in Figure 3 for various developmental levels.

Regardless of the number of clusters or the criteria used to establish them, a good clustering system can function as a device to help students focus on the sequence of career awareness, exploration, and preparation. Hoyt (1974) points up the usefulness of the clustering concept in providing linkages among the components of career education, in providing structure for career awareness and orientation, and for adding realism to school experiences.

The cluster concept is useful as a basis for curriculum because it compliments the students' stages of vocational growth by beginning with an overview, and gradually narrowing the focus to a family of occupations appropriate for each
student's preparation and training. By preparing for a cluster of occupations rather than a single job, the student is able to develop greater flexibility in the world of work, and to better prepare himself for a career which will likely involve several occupational changes throughout life.

**Models**

The concept of career education is so comprehensive that it is difficult to represent in any single definition.
Perhaps a better understanding can be gained through the use of operational definitions or models of career education. Through the development and use of models, general concepts can be refined, operationalized, and tested, thus bringing a more specific and realistic focus. The four conceptual models most frequently cited are those developed by the U.S. Office of Education in 1972 and implemented in a number of sites throughout the country. These models represent four ways to implement the objectives of career education in a variety of settings: school, home, community, and residential.

**School-Based Model I (Comprehensive Career Education Model)**

This model was developed at The Center for Vocational and Technical Education at The Ohio State University in an effort to field test a career education system in the schools. The CCEM is based on the infusion of career development objectives into regular K-12 educational programs. Its purpose is to acquaint students with a wide variety of career opportunities and to integrate academic skills, social development, and career preparation. Extensive guidance and counseling services are included in this model to help students develop self-awareness, self-confidence, and mature attitudes, and to match their interests and abilities to potential careers.

The objective of the school-based model is to ensure that students leave school with:
-- a comprehensive awareness of career options,
-- a realistic understanding of the relationship
    between education and the world of work,
-- self-identity and positive attitudes toward
    work, and
-- the ability to enter employment and/or further
    education.

**Employer-Based Model II**

The employer-based model is an attempt to provide
alternative educational programing to teen-age students
in an employer-based setting. This model is operated by
consortia of public and private businesses with the support
of such organizations as unions, PTAs, and the Chamber of
Commerce. This model attempts to broaden the base of
community participation in career education and to make
education more relevant to the world of work by viewing
the community as a classroom. Hence, educational activities
are extended to such settings as hospitals, factories, and
parks. Students are encouraged to meet high school
requirements through this model and to participate in the
selection of work situations relevant to their own interests
and needs.

**Home/Community-Based Model III**

This model is a career-oriented approach designed to
enhance the employability and career options of out-of-
school adults, and to develop an educational delivery
system for the home and community. It attempts to coordinate, through a Career Extension Service, the use of mass media and the existing career education resources in order to help them reach and respond to the needs of home/community-based populations.

The objectives of this model are:
-- to develop more competent workers,
-- to develop transportable processes and products, and
-- to enhance the quality of the home as a learning center.

Rural/Residential-Based Model IV

Through this model, residential centers were established to house intensive programs and wide-ranging services for the entire family. The model includes education and social service systems, a research and evaluation system, and an economic development service plan.

The objectives of this model are:
-- to provide rural families with employment capabilities suitable to the area,
-- to provide leverage on the economic development of the area, and
-- to improve family living through employment, study, and home management.

These models represent four alternative delivery systems for career education goals. While each may be valid
and effective in its own right, Goldhammer and Taylor (1972) suggest that the school-based model takes on a special significance when viewed in relation to the other three. It is the school-based model that provides the formative input to all children and youth. Basic attitudes and skills are established during the critical school years. The other models function as a complement to, and a life-long extension of, the school-based model.

Hoyt (1975) notes that there is disagreement in the literature regarding the scope and locus of control of career education. (Is it solely a function of the schools? Should the schools provide leadership for other community agencies? Or are the schools simply one of several participants in the career education process?) But no one disputes the fact that schools have a legitimate and important role in career education. Marland (1976) reasons that, while there must be a commitment from business, labor, industry, and government, the primary responsibility logically lies with the educational system to coordinate these efforts and to bring things together. The school-based model, then, will provide the context for the remaining discussion.

The Comprehensive Career Education Matrix

The school-based model was further defined and operationalized by the project staff at The Ohio State University Center for Vocational and Technical Education through the development of the Comprehensive Career Education Matrix.
(CCEM). The matrix identifies eight broad elements, each stated in terms of student activities and outcomes. This model involves some 32 subordinate themes, 1,500 goals, and 3,000 general performance objectives, and is, according to Hoyt (1975), "... perhaps the most comprehensive operational definition of career education yet developed." (p. 63)

The CCEM is discussed by Keller (1972) and Hoyt (1975) and is graphically represented by Massey (1974) as in Figure 4.

Figure 4: The Comprehensive Career Education Matrix (from Massey, 1974, p. 67).
Massey also provides samples of the objectives contained in Table 1. In pursing these objectives, the reader will observe a progression over grade levels from a general awareness level to an increasingly more specific focus. This pattern is illustrative of the educational phases described in a previous section.

**Summary**

The term "career education" was introduced by Marland and conceptualized by Hoyt during this decade. The philosophy of career education has evolved over a number of years and there is general consensus in the literature with respect to its underlying principles.

There is no consensus, however, on the matter of a specific definition of the career education concept. This is due to:

--- the comprehensive nature of the concept,
--- the variety of approaches taken in defining it,
--- misconceptions about the purpose of career education,
--- misuse of related terminology, and
--- a deliberate attempt to let the concept evolve without the constraints of a single, official definition.

Existing definitions tend to be compatible in terms of their more general, philosophical components, but they differ in the way these concepts are operationalized.
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Sample Objectives from the Comprehensive Career Education Matrix (from Massey, 1974, pp 93-94).

### TABLE 1

**Sample Objectives from the Comprehensive Career Education Matrix (from Massey, 1974, pp 93-94).**

<table>
<thead>
<tr>
<th>ELEMENTS</th>
<th>K-1</th>
<th>2-3</th>
<th>4-8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SELF-AWARENESS</strong>&lt;br&gt;Awareness of the components that make up Self.</td>
<td>After looking in a tall mirror, the learner will visually describe his physical characteristics, such as height, eye color, hair color, approximate body weight, etc., he will verbally list three tasks which he likes to do in school.</td>
<td>The learner will demonstrate an understanding of self by commenting on how he feels about himself and other people and things.</td>
<td></td>
</tr>
<tr>
<td><strong>EDUCATIONAL AWARENESS</strong>&lt;br&gt;Awareness of the connection between education (in and out of school) and life rules and goals.</td>
<td>During a teacher-led discussion, the learner will orally describe two things which he has learned outside of school which he would like to learn more about in school.</td>
<td>After discussing with a school counselor, the learner will commonly describe how such a school-sponsored trip would help him gain a better idea of his true career interests.</td>
<td></td>
</tr>
<tr>
<td><strong>CAREER AWARENESS</strong>&lt;br&gt;Awareness of the world of life careers, including occupational careers.</td>
<td>Given a picture of several common objects, the learner will circle the two articles which cost the most.</td>
<td>After analyzing three occupations, the learner will list the general skills required for one of these occupations (such as education, physical skills, etc.).</td>
<td></td>
</tr>
<tr>
<td><strong>ECONOMIC AWARENESS</strong>&lt;br&gt;Awareness of the functions of production, distribution, and consumption in relation to the individual and society.</td>
<td>In a group discussion setting, the learner will describe how he earns money and other things, and states one reason why.</td>
<td>Given a list of five common occupations, the learner will verbally describe the economic rewards related to each and state three reasons why there is a difference.</td>
<td></td>
</tr>
<tr>
<td><strong>DECISION MAKING</strong>&lt;br&gt;Applying information and values to the process of making rational decisions.</td>
<td>The learner will observe the work of two people in the neighborhood and relate his impressions to others in the class.</td>
<td>After taking part in a group project which requires division of labor, each learner will explain how his task related to the group and state possible reasons why there is a difference.</td>
<td></td>
</tr>
<tr>
<td><strong>BEGINNING COMPETENCY</strong>&lt;br&gt;Development of ergonomic and person-oriented skills needed for job performance.</td>
<td>Given six cans of different diameters, the learner will arrange the cans in some order and orally explain the order used.</td>
<td>Given the task of organizing a simple group activity, the learner will list the major steps which must be taken to achieve the task.</td>
<td></td>
</tr>
<tr>
<td><strong>EMPLOYABILITY SKILLS</strong>&lt;br&gt;Social skills and communication skills appropriate to occupational career placement.</td>
<td>Given a teacher-directed group activity, the learner will participate and later relate how he participated.</td>
<td>Given a list (verbatim) of the tasks which must be performed around the classroom, the learner will choose a task and state why he wishes to do the task.</td>
<td></td>
</tr>
<tr>
<td><strong>ATHLETICS AND APPRECIATIONS</strong>&lt;br&gt;Feeling for role relationships of self and others in a social and occupational context.</td>
<td>Given a graphic representation of people involved in several different types of common occupations found in the community, the learner will explain verbally how our person helps the community.</td>
<td>Given 20 tasks which are examples of data processing tasks, group decision-making tasks, and team-oriented tasks, the learner will, in writing, properly categorize the tasks.</td>
<td></td>
</tr>
</tbody>
</table>
### Sample Objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-9</td>
<td>The learner will verbally describe three occupations which he finds interesting and relate these to his personal characteristics.</td>
</tr>
<tr>
<td>10-12</td>
<td>Given a list of 10 work environments, the learner will list the three environments in order of priority, in which he would feel most capable, working, as indicated by his personal characteristics.</td>
</tr>
<tr>
<td>POST-SECONDARY AND ADULT EDUCATION</td>
<td>The learner will describe, in writing, three things learned in school which help him in accomplishing some project or undertaking outside of school.</td>
</tr>
<tr>
<td>OUTCOMES</td>
<td>After having interviewed representatives of three community organizations, the learner will describe, in writing, how the school could advance career perceptions of other students by working with those community organizations.</td>
</tr>
<tr>
<td>SELF-IDENTITY</td>
<td>Given a list of occupations, the learner will choose two occupations which are of interest to him, and will describe the entry requirements and plans he has for accomplishing those plans.</td>
</tr>
<tr>
<td>EDUCATIONAL IDENTIFICATION</td>
<td>After analyzing a hypothetical individual's economic situation, the learner will explain how the economic climate of an individual, the learner will describe how this situation affects the student on his personal and occupational career.</td>
</tr>
<tr>
<td>CAREER IDENTIFICATION</td>
<td>After engaging in on-the-job experiences in an occupation which interests him, the learner will describe the reasons for choosing to continue in that occupational area of change.</td>
</tr>
<tr>
<td>ECONOMIC UNDERSTANDINGS</td>
<td>Given a problem to solve and a hypothetical &quot;case study&quot; situation, the learner will evaluate his performance in making the decisions involved in arriving at the solution to the hypothetical problem.</td>
</tr>
<tr>
<td>CAREER DECISIONS</td>
<td>After observing another learner who is engaged in the same occupational area, the student will describe in writing, the step-by-step process of the second learner and list suggestions on how the performance could be improved.</td>
</tr>
<tr>
<td>EMPLOYMENT SKILLS</td>
<td>Given a list of 3 occupations per USA job cluster, the learner will indicate two clusters and three occupations which agree with his interests and abilities.</td>
</tr>
<tr>
<td>CAREER PLACEMENT</td>
<td>Given a previously stated learner career goal the learner, in writing, will describe his plans for adjusting to future career plans.</td>
</tr>
<tr>
<td>SELF-SOCIAL FULFILLMENT</td>
<td>After working on the job for one week in an occupation which interests him, the learner will in writing, describe the interpersonal relationships which were observed and possible ways of improving interpersonal interactions.</td>
</tr>
</tbody>
</table>
The career education process is usually depicted as a progression from general career awareness, through career exploration, and finally the more specific career preparation, job acquisition, and maintenance. This sequence can be approached in a number of ways.

The USOE developed models for the implementation of career education in four settings: school-based, home/community-based, employer-based, and rural/residential-based. The school-based model is considered to be central to the career education effort.

The school-based model was conceptualized as a matrix of elements stated in terms of student activities and outcomes. This matrix is consistent with the Awareness-Exploration-Preparation stages of development and it provides a framework for the career education curriculum.

Additional structure is provided for the career education curriculum by the career cluster concept in which occupations are categorized in various ways to facilitate teaching at each state of development.

Career Education for Moderately Mentally Retarded Students

Career Education for the Handicapped

In this era of affirmative action and equal rights, it hardly seems necessary to justify the inclusion of special needs populations in any phase of educational programming. There is little question among the advocates
of the career education approach that it is appropriate for handicapped students as well as for the non-handicapped. The handicapped are implicitly included in the many definitions of career education which state that it is for "all individuals." Some definitions (the definition sections of Public Law 95-207 among them) explicitly state that the handicapped population is included in the career education concept. Further, the rights of handicapped children to equal educational opportunity are guaranteed by the Education for All Handicapped Children Act of 1975 (Public Law 94-142) and by section 504 of the Rehabilitation Act of 1973 (Public Law 93-112).

The literature in career education includes references to a number of "special needs" populations, including women (Bailey and Stadt, 1973; DHEW, 1974; Smith, 1973), minority groups (DHEW, 1974), and the culturally or educationally disadvantaged (Bailey and Stadt, 1973), as well as the handicapped. In his H.R. 7 testimony, Hammerschmidt (1977) stated that minorities, women, and the handicapped are among the most in need of sensitive assistance to enhance their career awareness and skills (H3008). Literature on career education for the handicapped is concerned both with the conceptual and the programmatic level.

The concept of career education for the handicapped has been endorsed in published speeches by Hoyt and
Worthington of the USOE. The Worthington paper (1973) defines career education and identifies programmatic levels which emphasize career guidance. Worthington calls for a guidance approach that is responsive to the needs of exceptional youth and adults. The author reminds his audience that equal educational opportunity does not mean the same educational approach for all students -- methods, materials, and techniques must be adapted for use with the handicapped. Worthington notes some of the projects funded through the USOE and calls for increased cooperation among special education, vocational education, and vocational rehabilitation at the state level.

The Hoyt paper (1974) also begins with definitions and includes a discussion of the concept of work. Hoyt focuses on a rationale for career education for the handicapped. He cites the USOE predictions quoted by Barone (1973) regarding the 2.5 million handicapped youth who would leave our school system in the following four years:

21% (525,000) would be either fully employed or enrolled in college,

40% (1,000,000) would be underemployed and at the poverty level,

8% (200,000) would remain in the home community, idle much of the time,

26% (650,000) would be unemployed and on welfare, and
3% (75,000) would be institutionalized and totally dependent.

Hoyt states that this prediction of one million underemployed handicapped persons is an indictment of our school systems. Underemployment, he reasons, implies that the person possesses more productive capacity than he is required (or permitted) to use. Underemployment results in boredom. Hoyt points out the societal assumption that a handicapped person cannot be bored by a simple job, and that he should, in fact, be pleased and grateful for any kind of work society provides. Hoyt makes two additional accusations regarding the general attitude toward the handicapped: a) that his interests and aptitudes need not be considered in the same manner as those of the "normal" person, and b) that the unemployed handicapped are not capable of working. Our emphasis, Hoyt claims, has been on helping the handicapped realize how much society is doing for them, rather than focusing on how much each handicapped person can do for himself.

Hoyt's argument, of course, is that work is a basic human right and that handicapped individuals should be able to choose from among the widest set of possibilities. Career education, then, is necessary as a means of making work possible, meaningful, and satisfying for each handicapped individual.
The rationale for career education for the handicapped is strengthened by the DHEW (1972) report that the number of handicapped school-aged youngsters in this country exceeds 10% of the total school-aged population, and that these children can benefit as much as other children from formal education. The report explains that, given appropriate educational experiences, 9 out of 10 handicapped children can become productive, self-supporting adults. For the remainder, full educational opportunity can lead to happier and more constructive lives for the children and for their families.

A 1974 "State of the Scene" report (DHEW/OE) recognized the responsibility of career education to serve all people, including the handicapped. The report states that "while innovative career education efforts are underway to meet the needs of these special groups ... it would be incorrect to say that these efforts are commonplace. Major initiatives at every educational and governmental level are still needed to make career education a reality for these populations." (p. 148)

Klinkhamer (1973) observed that career education for the handicapped has been somewhat slower than it has been for the general population but that progress has been made in this direction in a number of states.

Career education has since been adopted as a national priority by the Bureau of Education for the Handicapped
which set as its goal appropriate career education opportunities for every handicapped child by 1977 (Barron, 1975). Although this goal was rather ambitious, it did provide momentum for the career education movement. The establishment of a Career Education Division within the Council for Exceptional Children and the increasing occurrence of seminars and conferences on career education for the disadvantaged and handicapped are indicative of growing interest on a national scale. In the absence of uniform standards and guidelines, however, program development has been uneven.

Considerable variation exists in terms of the quality of program descriptions and research reports in the literature. Most of the programs are organized in terms of behavioral objectives with supporting activities and materials. Most programs employ some kind of career clustering system. Few are specific in relating career education activities to academic subjects. Research and discussion articles are almost exclusively descriptive in nature, often remaining on a philosophical plane.

In reviewing the numerous projects, programs, and curricula that have been developed in the area of career education for the handicapped, three shortcomings commonly emerge. The first stems from a lack of clarity and specificity in defining "handicapped" or "special needs" populations. Some programs list a number of handicapping
conditions, while others by declining to specify certain conditions, lead the reader to assume that many or all handicapped populations are to be served by the program. As a result, these "special" career education materials for the handicapped provide only a general guide for the teacher, who must attempt to personalize the instruction for the divergent needs of her blind, or mentally retarded, or hearing impaired, or multiply handicapped students. These programs have little to offer the special education teacher beyond what is available in regular public school career education guides.

They may, in fact, offer less. The second problem with career education programs for the handicapped is that they typically offer an instructional sequence based on the regular career education curriculum, but scaled down for the special needs children. For example, if the regular elementary career education program calls for an orientation to ten career clusters, the special education program might list three -- and those three are likely to be service-related and semi-skilled occupational areas. By contrast, the better programs build on the regular career education curriculum by adding supplementary, remedial, and enrichment materials rather than stripping away the seemingly higher-level activities.

A third problem with career education programs for the handicapped is the same one Hoyt observed for career
education in general: that implementation has been spotty, with emphasis in the elementary grades and a lack of follow-up in the secondary and post-secondary years. Programs tend to be small-scale and limited in their focus. Like the many definitions of career education, career education programs for the handicapped each take a different approach and set of objectives. This is antithetical to the concept of life-long continuity in learning.

The task of developing a comprehensive, life-long career education program for the handicapped is a monumental one. The career education concept is so complex and the needs of the handicapped so diverse, that it may not be realistic to expect that a single program can be the answer. Perhaps a more feasible solution would involve a combination of systems and curricular units, each responding in a comprehensive way to one aspect of the total program.

This type of comprehensive response is exemplified by Project CAREER (Computer Assisted Research for Educational Relevance), developed in Massachusetts in 1973. The first component of this project is a data bank of some 19,000 behavioral objectives representing over 100 occupations appropriate for the state's economy. A second phase of the project resulted in the coding of these objectives to predict career options available for the handicapped. The computer print-out codes each objective as either (A) -
attainable as stated, or (M) - attainable with modifications, for each of the following special needs populations: hearing impaired, deaf, educable mentally retarded, trainable mentally retarded, partially sighted, blind, speech impaired, physically impaired (1 leg, 1 arm, hemiplegic paraplegic, quadriplegic), moderately emotionally disturbed, and severely emotionally disturbed.

The print-out also contains such instructional information as prerequisite skills, component tasks, environmental conditions, and concepts to be taught.

Another exemplary program is a series of 9th and 10th grade career education units designed for special vocational education teachers of disadvantaged and handicapped students in a public school setting. The units, developed at the University of Kentucky Career Development Center, include:

- Introduction: Orientation to the World of Work (Atkins, 1974)
- Occupational Safety: Orientation to the World of Work (Evans and Wills, 1974)
- Learning About Job Clusters: Orientation to the World of Work (Johnson, 1974)
- Getting a Job: Orientation to the World of Work (Atkins and Delany, 1973)
- How to Keep a Job: Orientation to the World of Work (Scott and Love, 1974)
- Personal Development: Orientation to the World of Work (Nordloh, 1973)
- Self-Appraisal for Employment: Orientation to the World of Work (Hill and Craig, 1974)
- The Role of Work in Our Society: Orientation to the World of Work (Roundtree and Anthony, 1974)
- Taxes Affecting the Worker: Orientation to the World of Work (Rankin, 1974)
- Handling Your Paycheck: Orientation to the World of Work (Craig, et al., 1974)

The Introduction unit is particularly noteworthy because it makes the principles of career education relevant to the students' immediate situation. The major concepts of the unit are "Orientation to School," "Succeeding in School," and "Vocational Opportunities in High School."

Through this unit, the special needs student is given basic instruction pertaining to his current job -- that of being a high school student. Vocabulary words such as "required course," "elective course," and "credit hour" are taught. An orientation is provided in the physical lay-out of the school building. Lessons are geared toward the development of good study habits. Students are taught to behave appropriately and function normally in what otherwise might be a punishing and overwhelming environment.

This program appears to be a responsible and productive way to handle the "problem" of mainstreaming special needs
students into secondary schools. It also appears to provide continuity to the students' educational experience by easing a potentially difficult transition.

Career Education Programs for the Moderately Mentally Retarded

In addition to the career education programs for the handicapped that may be applicable to a moderately mentally retarded population, there are a limited number of programs designed specifically for this population. The problems cited earlier with regard to the literature on career education for the handicapped are particularly applicable here. There is confusion in defining and labeling the target population. Of the many references available on career education for the mentally retarded, most specify the educable mentally retarded (EMR) -- a label which seems to be generally accepted and understood. Some programs fail to specify a level of retardation; and among those programs designed for the lower-functioning students, the terms "trainable mentally retarded," "moderately mentally retarded," and "severely retarded" are used without being defined. In an article by Levoci (1974) the levels of mental retardation are specifically defined, but the students who fall below the EMR range are excluded in his remarks.

Further, when the moderately mentally retarded population is targeted, the curriculum is generally very
limited. For example, the Radford, Virginia career education program offers 39 units for grades K-3, 42 units for grades 4-7, 107 units for grades 8-12, and 18 units for all of special education. Of these, only 3 are designed for the TMR classes: Clothes and Sewing; Food and Nutrition; and Home and Child Care.

Finally, efforts in the area of career education for the moderately mentally retarded are few, scattered, and totally without continuity.

In its 1971 report, the President's Committee on Mental Retardation stated that the mentally retarded adult is a forgotten human being and that few states have an adequate range of workshop, activity, or recreation programs for the retarded adult in the community. Fewer still have effective on-going counseling services.

In 1973 the Bureau of Education for the Handicapped (DHEW) published descriptions of career education programs selected by personnel in each state as representative of their ongoing efforts in vocational education for the handicapped. This publication, released after career education was identified as a BEH priority, included only 13 programs for the trainable mentally retarded, each serving an average of 70 students.

Given the apparent strength of the rationale for career education for the handicapped and the alleged popularity of the career education approach, the paucity
of literature on career education for moderately mentally retarded students gives rise to some speculation.

Empirical investigation might reveal that a career education approach is not being used in classes for the moderately mentally retarded; or that, if used, it is not being reported in the literature. Or perhaps many of the concepts included in the broad framework of career education are embraced by teachers of the moderately mentally retarded but are not being labeled as career education. In any event, it is clear that comprehensive career education programs have not been systematically developed and infused in most curricula for moderately mentally retarded students.

This leads to the fundamental question of whether a career education approach is indeed appropriate for, and compatible with, the basic curriculum for a moderately mentally retarded population. The following exploration of this question will be limited to the career education curriculum and the curriculum for moderately mentally retarded learners in the State of Ohio.

The Curriculum for Moderately Mentally Retarded Students

Persisting Life Problems Approach

The State of Ohio Curriculum Guide for Moderately Mentally Retarded Learners (1977) is based on the philosophy that every individual has inherent worth and that
educational programming must be relevant to the needs of the persons served. The Guide is organized around the concept of "Persisting Life Problems" which was developed and refined by Niesen (1964) for use in the curriculum guide for mildly mentally retarded learners in the Cincinnati Public Schools. This approach identifies certain problems which confront individuals at various stages of life and which must be solved if the individual is to cope successfully with his environment. The proponents of this approach believe that if learners can solve these problems throughout their lives, the fundamental purposes of education will have been achieved.

The problems encountered throughout the lives of moderately mentally retarded persons are essentially the same as those faced by other persons. Understanding of self, acceptance of responsibility, and satisfactory relationships with others are examples of the kinds of problems which must be solved as each person makes a successful adjustment.

Because moderately mentally retarded individuals have unique needs and limitations, their Persisting Life Problems differ in relative importance, complexity, and emphasis from those considered critical for others. The following six Persisting Life Problems, considered essential and critical for the moderately mentally retarded learner, serve as the basis for their curriculum:
I. Developing the Ability to Communicate
II. Managing One's Body
III. Understanding One's Self and Others
IV. Fulfilling Home and Work Responsibilities
V. Developing the Ability to Travel
VI. Developing Leisure Time Alternatives

Within each of these areas, dimensions differ and levels of importance vary as the student moves through each level of development. The behavioral objectives identified within each PLP area are categorized by developmental level. The Curriculum Guide suggests that instruction should begin very early in childhood and continue throughout the learner's life.

Of the six Persisting Life Problems, the third one, "Understanding One's Self and Others," is central to the program. The Guide criticizes traditional programs which have "prepared the individual to deal more adequately with tasks and machines than with (themselves) and others." The Guide recognizes the importance of work skills and tools but stresses the idea that daily life is not so much a situation of rote answers and repetitious tasks as it is a series of interactions, relationships, and compromises. The ability to accept and understand oneself, develop a realistic self-concept, and interact with others is prerequisite to success in the other areas.
The Social Learning Curriculum

The basic State curriculum described above is supplemented in many county programs with the Yeshiva Social Learning Curriculum (1969). This curriculum is based on the philosophy that learning tasks must have both immediate and long-range pay-offs for the student: they must be relevant to the student's present state and must build a foundation for later learning.

The Yeshiva philosophy views traditional subject matter areas as having little intrinsic value for the moderately mentally retarded learner. This academic learning is important only as a vehicle for social learning, adaptation, and assimilation into society. The emphasis of this curriculum is social development. It is based on the assumption that moderately mentally retarded individuals can learn to function within society. This learning should begin within the individual, and his environment will expand with growth to include his home and family, neighborhood, and the community. Figure 5 represents the Yeshiva concept of expanding environments.

The Yeshiva curriculum explains that social competence has two pervasive characteristics: the ability to think critically and the ability to act independently. These characteristics are the goals of the social learning curriculum.
Figure 5: Model of Child’s Expanding Environment and Environmental Components (Yeshiva, 1969).
These goals are not to be interpreted as meaning total independence for every moderately mentally retarded person in every situation. Total independence is not a realistic or desirable goal for any person in our society. It is our mutual interaction and interdependence that allows us to function effectively. Nor does this curriculum attempt to disguise the fact that the learner is mentally retarded. What the moderately mentally retarded individual needs to learn is that he can do some things independently but that he will require assistance for others. He will need to think critically to determine the difference. Independent functioning, then, will involve knowing when, of whom, and how to request assistance. As with the Persisting Life Problems curriculum, the concept of self in relation to others is a central theme.

A Career Education Curriculum Model

The Ohio Department of Education has defined career education in terms of seven developmental areas which, together with the USOE 15 career clusters, provide the structure for the career education curriculum. These seven components are:

Individual and Environment
World of Work
Education and Training
Economics
Employability and Work Adjustment

Decision Making

Self

In exploring the relationship among these components, the model developed by Dygert (1977) is useful. This model is presented in Figure 6.

![Figure 6. Dygert's Career Education Model.](image)

Once again the concept of self and the individual's relationship to his environment are pervasive factors. These seven curricular components can easily be subsumed within a Persisting Life Problems framework, and within both these schemes, the Yeshiva emphasis of self and social
development is evident. On a content level, then, the career education curriculum for the State of Ohio is quite compatible with the curriculum for moderately mentally retarded learners.

The Dygert model can be expanded to incorporate the curriculum for moderately mentally retarded learners by setting it within the context of persisting life problems and by including the Yeshiva concept of expanding environments. Figure 7 represents the expanded model.

![Diagram](attachment:image.png)

**Figure 7: Career Education Curriculum Model of Moderately Mentally Retarded Students.**
Although the term "career education" may not be familiar to teachers of moderately mentally retarded students, many of its concepts and much of its content have been embraced by the curriculum for moderately mentally retarded learners. Philosophically and substantively career education is compatible with, and appropriate for, programmatic efforts for this special needs population.

Within programs for the moderately mentally retarded, efforts should be directed at pulling the concepts together into a comprehensive plan to provide relevance and continuity for these children throughout their lives.

**Summary**

Although the career education movement and the movement toward education for all handicapped children have both come of age, their merger has not yet been realized on a comprehensive programmatic level. A rationale supporting career education for the handicapped can be established through the definition of career education, through demonstrated needs of the handicapped population, through mandates for equal education opportunity for the handicapped, and through a study of the philosophical and programmatic compatibility of the career education approach with the curriculum for moderately mentally retarded students.
The need for career education for the handicapped has been recognized by national educational leaders and funding has become available in recent years for a variety of programs, primarily at the local level. The literature suggests, however, that this program development has been spotty and without continuity. Many career education programs for the handicapped are simply reduced versions of regular programs and they frequently lack a clear definition of their target population.

The literature in the area of career education for the handicapped tends to be divided into dichotomous categories: the very general, philosophical discussions of the value of the career education approach, and very specific program descriptions usually restricted to a narrow age range, a single school district, and a limited number of students. What is lacking (and needed) is an effort to incorporate the principles of career education at a general program level.

In the State of Ohio, career education is defined in terms of seven developmental areas. These components can be easily combined with the elements of the curriculum for moderately mentally retarded learners. This curriculum is based on a Persisting Life Problems approach. In both these curricula, self-awareness is a central component. Both programs begin with the learner, and build outward
to develop each person to his maximum potential and to offer the broadest range of opportunities for him.

In terms of goals, philosophies, and curricular components, the career education approach is compatible with the Ohio curriculum for moderately mentally retarded learners.

The Yeshiva concept of expanding environments is useful in coordinating the two approaches. Conceptual models of the career education components and the expanding environments are combined within a persisting life problems framework to form a model for career education for moderately mentally retarded learners.
CHAPTER III

RESEARCH METHOD

Subjects and Setting

The individuals who served as subjects in this study were selected from the Franklin County Program for the Mentally Retarded (FCPMR) in Columbus, Ohio. The FCPMR serves approximately 1800 clients, ranging in age from infancy through adulthood.

Two groups of adults were selected as subjects for this investigation: 60 parents and 60 teachers/instructors of moderately mentally retarded individuals. One half of the subjects in each group were randomly assigned to an experimental condition, while the remaining subjects served as controls.

Through the use of a table of random numbers, the teachers/instructors were selected from an alphabetical list of the program's instructional staff.

Sixty-four teachers/instructors were contacted by telephone and asked to serve as subjects in the study.

The 60 who agreed to participate represented 4 of the program's 10 Early Childhood Training classes, 9 of
the 13 pre-schools, all four of the training centers for school-age children, and all three of the sheltered workshops. These teachers/instructors represent approximately one half of the program's instructional staff (teaching assistants and specialists excluded). Fifty-one of the teachers/instructors were female and nine were male.

The teachers/instructors had no previous formal exposure to career education through the county program.

From the class roster of each participating teacher/instructor, one parent name was randomly selected. (A second name was identified as a substitute in the event that the first should decline to participate.) Sixty-five parents were telephoned and 60 agreed to serve as subjects. Of these 60, 54 were female and 6 male.

For the purpose of analysis, four sub-groups were identified on the basis of the school placement: Pre-school (0-6 years), Primary-Intermediate (6-12 years), Junior-Senior (12-18 years), and Adult (18 and over).

Table 2 provides descriptive information about the subjects.

**Instruments and Materials**

**Attitude Scales**

Attitudes toward career education for moderately mentally retarded learners were measured by two equivalent forms of a Likert-type scale designed for this study.
<table>
<thead>
<tr>
<th>Number of teachers/instructors</th>
<th>Number of Parents</th>
<th>Age Range of Students</th>
<th>Mean Age of Students</th>
<th>Years of Teaching Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp.</td>
<td>Control</td>
<td>Exp.</td>
<td>Control</td>
<td>Exp.</td>
</tr>
<tr>
<td>Preschool</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Pri/Int</td>
<td>4</td>
<td>8</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Jr/Sr</td>
<td>10</td>
<td>9</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Adult</td>
<td>9</td>
<td>7</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>
The development and analysis of the preliminary scale is detailed in Appendix A.

The pre- and post-test forms of the scale each consisted of 30 statements. After reading each statement, the subjects were instructed to respond by indicating the extent to which they agreed or disagreed. Cover letters and instructions accompanied each scale.

Copies of the pre- and post-test materials are available in Appendices C and E, respectively.

**Intervention Materials**

A set of reading materials was compiled to provide information about the career education approach and a rationale for its use with a moderately mentally retarded population. The booklet included: an introduction, definitions of what career education "is" and "is not," Hoyt's article entitled "Career Education for the Handicapped Person," examples of career education activities, and a reading checksheet. These materials were duplicated with an electronic stencil and printed on pastel paper. A copy of the booklet is presented in Appendix D.

In selecting materials for inclusion in the booklet, an effort was made to limit the number of pages, include basic information in both a professional, authoritative manner and a simplified summary format; and to provide an opportunity for feedback.
An introduction was written by the experimenter in an attempt to personalize the materials and address them to the participating subjects. The definitions of what career education "is" and "is not" were adapted from an in-service training package developed in Florida and included for the purpose of capsulizing some basic concepts and reaching those individuals who might only have time to skim through the materials and those with limited reading ability.

Hoyt's article was selected because it is one of the few authoritative works available on career education for the handicapped and because of its interest and appeal for the more capable reader.

Examples of career education activities were included as a means of applying the preceding definitions and discussion to typical daily activities and to demonstrate the role of the home as well as the school in teaching career education concepts.

Finally, a self-test checksheet was included as a means of highlighting major points, encouraging readers to check their comprehension and imposing a deadline for completion of the materials. The completed checksheets were collected by the experimenter in an effort to emphasize the importance of the reading. In order to reduce the possibility of any test anxiety, an answer key was provided.
Procedure

Preliminary Correspondence

Prior to the initiation of the study, clearance was requested of, and granted by, the administrator of the Franklin County Program for the Mentally Retarded and the Human Subjects Research Committee of The Ohio State University.

Next a memo was mailed to the school principals, workshop directors, and pre-school supervisor of the Franklin County Program for the Mentally Retarded notifying them that the study had been approved and that teachers/instructors and parents from their buildings would be contacted.

Since materials would be carried to and from school by students, the program bus drivers were also notified about the study and asked to assist with the delivery of the correspondence. Copies of this correspondence are available in Appendix B.

Distribution of Materials

Throughout the study, the experimenter personally delivered materials to each of the 20 school/workshop buildings. Staff mailboxes were utilized where available; otherwise, materials were handed directly to the teachers. Teachers/instructors received two sets of materials: one for their own use and a second set, in a separate envelope addressed to a parent, to be sent home with the designated student and returned by a specified date.
Upon receipt of the parent's responses, the teacher/instructor returned both sets of materials to the school/workshop office where they were picked up by the experimenter. (Building secretaries were helpful in coordinating this effort.)

Copies of all materials were provided as a courtesy to the school principals, pre-school supervisor and workshop directors, and to the Program administrator, curriculum coordinator, and the psychologist responsible for coordinating research.

Pre-Intervention Phase

The first set of materials, distributed to all subjects, consisted of an explanatory cover letter, a subject consent form, the pre-treatment form of the attitude scale, and a data form. These materials are presented in Appendix C. The materials were collected one week following their distribution.

Intervention

Upon collection of the first set of responses, a booklet of readings was distributed to teachers and parents in the treatment group. Each booklet was accompanied by a cover letter instructing the subjects to read the materials, complete the enclosed checksheet, and return the checksheet within two-weeks time.

One week following the distribution of the booklet, a letter of reminder was delivered to the treatment
subjects. This letter can be found, with the intervention materials, in Appendix D.

Post-Intervention Phase

The final set of materials included a cover letter and the post-intervention form of the attitude scale. (See Appendix E). These materials were delivered to all subjects five weeks after the distribution of the pre-intervention packet. Again, a one week deadline was imposed.

Follow-up Correspondence

Following collection of the post-intervention scales, letters of appreciation were delivered to all subjects and cooperating staff. This correspondence is available in Appendix F.

Data Preparation

Response forms were scored by hand. Values were assigned to each response on a point system from 1 to 5, with 1 indicating a negative attitude or low expectation level, and 5 indicating a positive attitude or high level of expectation. Raw scores, subject identification numbers, and information from the personnel data forms were key-stroked onto computer cards.
Experimental Design

This study involved both experimental and descriptive procedures. The experimental portion focused on the attitudinal differences between parents and teachers and the effects of a training package on modifying parent and teacher attitudes toward career education for moderately mentally retarded students.

For the experimental portion of the study (research questions 2 and 3), data were organized in a 2 Between Groups, 1 Within Subjects experimental design. An analysis of variance was based upon the following variables:

1. Treatment vs Control -- a fixed, experimental, between groups variable;
2. Parents vs Teachers -- a fixed, categorical, between groups variable; and
3. Pre-treatment vs Post-treatment -- a fixed, repeated measure within subjects variable.

Because the number of subjects per cell was unequal, an unweighed means analysis was performed. This approach is merited when unequal cell sizes are disproportionate and not representative of population proportions (Kennedy, 1977; Winer, 1962).

Descriptively, the study compared the attitudes toward career education for moderately mentally retarded students expressed by their parents and teachers/instructors. Efforts were also directed at discovering whether a
relationship exists between adult attitudes toward career education for the moderately mentally retarded student and the student's age.

In determining whether parent and teacher attitudes toward career education for moderately mentally retarded students are related to the student's age (research questions 4 and 5) a Pearson Product Moment Correlation was computed.

The computer facilities at The Ohio State University were utilized to analyze the data obtained for this study. Two programs were employed: the Statistical Package for the Social Sciences (SPSS) program (Nie, et al., 1975) and the Soupac Balanova program (University of Illinois, no date). These procedures were selected and implemented under the guidance of a consultant with the Research Consulting Service at The Ohio State University.

The data analysis is detailed in Chapter four.
CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

This study addressed the following research questions:

1. Do parents and teachers/instructors of moderately mentally retarded students express positive attitudes toward career education for these students?

2. Do parents and teachers/instructors manifest similar attitudes toward career education for their moderately mentally retarded students.

3. Can parent and teacher/instructor attitudes toward career education for moderately mentally retarded students be improved through exposure to selected reading materials?

4. Does a relationship exist between parents' expressed attitudes toward career education and the age of their moderately mentally retarded child?

5. Does a relationship exist between teachers'/instructors' expressed attitudes toward career education and the age of their moderately mentally retarded students/clients?

This chapter will present and analyze the data pertaining to each of these questions and will conclude with a summary of the findings.
Respondents and Non-Respondents

Table 3 presents the numbers and percent of subjects who completed each phase of the study.

As indicated in Table 3, there were six non-respondents on the pre-intervention scale. All six were parents, distributed evenly across child age level. Since they represented only 5% of the total sample, their failure to respond was not a concern in terms of a non-response bias in the pretest data.

Because the repeated measures design requires both pre- and post-intervention scores for each subject, only those subjects who completed and returned both forms were included in the analysis. Thus, pre- or post-test scores for the 26 subjects who completed only one form were eliminated from the study. In order to check for a non-response bias, a t-test was used to compare the mean pre-test score for these 26 subjects (117.81) with the pretest mean for the 88 subjects who were included in the final analysis (115.34). No significant difference was found.

General Attitude Level

The first research question addressed by this study related to the general attitude held by parents and teachers/instructors of moderately mentally retarded students toward career education. The scales designed to measure these attitudes consist of 30 items. When scored each response was
### TABLE 3

**Number and Percent of Responding Subjects**

<table>
<thead>
<tr>
<th>Group</th>
<th>Condition</th>
<th>Completed Pre-Test Scale</th>
<th>Completed Intervention Check Sheet</th>
<th>Completed Post-Test Scale</th>
<th>Useable returns (Completed both Pre- and Post-Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>Treatment</td>
<td>30 (100%)</td>
<td>28 (93%)</td>
<td>25 (83%)</td>
<td>25 (83%)</td>
</tr>
<tr>
<td>n=60</td>
<td>Control</td>
<td>30 (100%)</td>
<td></td>
<td>27 (90%)</td>
<td>27 (90%)</td>
</tr>
<tr>
<td>Parents</td>
<td>Treatment</td>
<td>30 (100%)</td>
<td>26 (87%)</td>
<td>17 (57%)</td>
<td>17 (57%)</td>
</tr>
<tr>
<td>n=60</td>
<td>Control</td>
<td>24 (80%)</td>
<td></td>
<td>20 (67%)</td>
<td>19 (63%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>114 (95%)</td>
<td>54 (90%)</td>
<td>89 (74%)</td>
<td>88 (73%)</td>
</tr>
</tbody>
</table>
assigned a value from 1 to 5, one (1) indicating a negative attitude, three (3) neutral, and five (5) positive. Thus the most negative possible score would be 30, a neutral score, 90, and the most positive score 150.

The range and mean scores for each group are presented in Figure 8 below:

```
<table>
<thead>
<tr>
<th>Raw Score</th>
<th>Negative</th>
<th>Neutral</th>
<th>Positive</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents</td>
<td>30</td>
<td>90</td>
<td>150</td>
<td>82-139</td>
</tr>
<tr>
<td>Pre</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td></td>
<td></td>
<td></td>
<td>90-139</td>
</tr>
<tr>
<td>Parents</td>
<td></td>
<td></td>
<td></td>
<td>101-145</td>
</tr>
<tr>
<td>Post</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td></td>
<td></td>
<td></td>
<td>96-142</td>
</tr>
</tbody>
</table>
```

Figure 8. Raw Score Ranges and Means by Treatment Condition and Group.

All subjects -- parents and teachers -- expressed relatively positive attitudes toward career education for their moderately mentally retarded students. This positive trend was evident at both the pre- and the post-intervention administration of the scale.

**Comparison of Parent and Teacher Attitudes**

The second research question addressed the similarity of attitudes between the two groups of subjects: parents
and teachers. Mean score and standard deviations for each treatment and group are presented in Table 4. These data were subjected to an unweighted means analysis of variance. The results, presented in Table 5, reveal no significant difference between parent and teacher scores on either the pre- or post-intervention scale.

### Table 4

Means and Standard Deviations of Subjects' Scores by Treatment Condition, Group, and Repetition

<table>
<thead>
<tr>
<th>Treatment Condition</th>
<th>Group</th>
<th>M (Pre)</th>
<th>SD</th>
<th>M (Post)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A1</strong></td>
<td>Teacher (n=25)</td>
<td>M = 115.77</td>
<td>9.02</td>
<td>M = 125.18</td>
<td>11.83</td>
</tr>
<tr>
<td></td>
<td>Parent (n=17)</td>
<td>M = 113.25</td>
<td>11.27</td>
<td>M = 120.69</td>
<td>9.62</td>
</tr>
<tr>
<td><strong>A2</strong></td>
<td>Teacher (n=27)</td>
<td>M = 113.27</td>
<td>11.51</td>
<td>M = 120.65</td>
<td>12.63</td>
</tr>
<tr>
<td></td>
<td>Parent (n=19)</td>
<td>M = 119.42</td>
<td>15.83</td>
<td>M = 120.79</td>
<td>10.66</td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td>Teacher (n=25)</td>
<td>M = 113.27</td>
<td>11.51</td>
<td>M = 120.65</td>
<td>12.63</td>
</tr>
<tr>
<td></td>
<td>Parent (n=17)</td>
<td>M = 119.42</td>
<td>15.83</td>
<td>M = 120.79</td>
<td>10.66</td>
</tr>
<tr>
<td><strong>Sample Total</strong></td>
<td></td>
<td>M = 115.87</td>
<td>13.68</td>
<td>M = 120.71</td>
<td>11.71</td>
</tr>
</tbody>
</table>

**TABLE 5**

The results, presented in Table 5, reveal no significant difference between parent and teacher scores on either the pre- or post-intervention scale.
### TABLE 5
Unweighted Means Analysis of Variance Summary Table

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (Treatment-Control)</td>
<td>1</td>
<td>1.445</td>
<td>0.007</td>
</tr>
<tr>
<td>B (Teacher - Parent)</td>
<td>1</td>
<td>1.337</td>
<td>0.006</td>
</tr>
<tr>
<td>AB</td>
<td>1</td>
<td>444.647</td>
<td>2.060</td>
</tr>
<tr>
<td>Error (S/AB)</td>
<td>79</td>
<td>215.803</td>
<td></td>
</tr>
<tr>
<td>Within subjects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C (Pre - Post)</td>
<td>1</td>
<td>1646.190</td>
<td>27.379 *</td>
</tr>
<tr>
<td>AC</td>
<td>1</td>
<td>164.547</td>
<td>2.737</td>
</tr>
<tr>
<td>BC</td>
<td>1</td>
<td>160.275</td>
<td>2.666</td>
</tr>
<tr>
<td>ABC</td>
<td>1</td>
<td>41.093</td>
<td>0.683</td>
</tr>
<tr>
<td>Error (S/C / AB)</td>
<td>79</td>
<td>60.125</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>165</td>
<td></td>
</tr>
</tbody>
</table>

* p<.001

**Effects of Intervention**

The experimental portion of this study, research question three, focused on the effect of exposure to selected reading materials on parent and teacher attitudes. Pre- and post-intervention scores on parallel forms of the attitude scale for the treatment and control groups were included in the omnibus F-test reported in Table 4.
The non-significant AC interaction indicated in Table 4 suggests that the intervention did not affect post-test scores. A significant difference was found, however, between pre- and post-test scores for the entire sample. The significant effect for factor C ($p \leq .001$) indicates that pre- and post-test mean scores differed to an extent greater than would be expected by chance. Post-test scores were higher than pre-test scores.

**Relationship Between Attitude and Child Age**

The two final research questions explored the relationship between the expressed attitudes toward career education parents' and teachers' and the age of their children/students. Child age categories were: 1. Preschool (age 0-6), 2. Primary-Intermediate (age 6-12), 3. Junior-Senior (age 12-18), and 4. Adult (age 18 and over). A Pearson Product Moment Coefficient was computed for parent and teacher scale scores and child age level.

A significant negative correlation ($-0.387$) was found between parents' pre-test scores and the age of their children ($p \leq .01$). A significant positive correlation ($0.346$) was found between teachers' pre-test scores and the age of their students ($p \leq .01$). No significant correlation was found between post-test scores and child age for either group.
Summary

The major findings of this dissertation are as follows:

1. Parents and teachers/instructors of students enrolled in a county program for the moderately mentally retarded expressed relatively positive attitudes toward career education for these students.

2. No significant differences were found between the attitudes expressed by parents and those expressed by teachers/instructors relative to career education for moderately mentally retarded students.

3. There was a significant difference in attitude between pre- and post-intervention scales for the entire population. Post-intervention scores were higher, indicating more positive attitudes toward career education for moderately mentally retarded students.

4. A significant positive correlation was found between teachers'/instructors' attitudes as measured on the pre-test and the age of their students. Teacher/instructor attitudes became more positive as child age increased.

5. A significant positive correlation was found between parents' attitudes as measured on the pre-test and the age of their children. Parent attitudes became less positive as child age increased.
CHAPTER V

DISCUSSION AND IMPLICATIONS, LIMITATIONS, AND RECOMMENDATIONS FOR FURTHER RESEARCH

Introduction

This study investigated attitudes toward career education for moderately mentally retarded students. The subjects were parents and teachers/instructors of children and adults enrolled in a county training program for the mentally retarded. Seventeen parents and 25 teachers participated in the experimental condition, while 19 parents and 27 teachers served as controls.

All subjects responded to pre- and post-test forms of a Likert-type attitude scale designed for this study. Additionally, the treatment group was exposed to a booklet of readings about career education for the handicapped.

The question addressed by this study and the results that emerged are summarized below.

1. Do parents and teachers/instructors of moderately mentally retarded students express positive attitudes toward career education for these students?

Yes. All subjects expressed relatively favorable attitudes.
2. Do parents and teachers/instructors express similar attitudes toward career education for moderately mentally retarded students?

No significant differences were found between parent and teacher/instructor responses.

3. Can parent and teacher/instructor attitudes be changed through exposure to a set of materials pertaining to career education for the handicapped?

Post-test scores for the entire sample were significantly higher than pre-test scores. Since no significant difference was found between treatment and control groups, however, the change cannot be attributed to the intervention procedure.

4. Is there a relationship between the attitudes of teachers/instructors and the age of the student taught?

A significant positive correlation was found between the age of the student and the expressed attitude of the teacher/instructor. Teacher/instructor attitudes became more positive as student age increased.

5. Is there a relationship between the attitudes of parents and the age of their moderately mentally retarded child?

A significant negative correlation was found between the age of the child and the attitudes expressed by the parents. Parent attitudes became less positive as child age increased.
Discussion and Implications

Response Rate

Although one of the potential disadvantages of survey research is a low rate of response, the total rate of return for this study exceeded 85%. This very satisfactory response rate may be attributed to safeguards built into the data collection procedure. Each subject was contacted by telephone prior to the initiation of the study. All materials were personally delivered to and collected from the schools and workshops by the investigator. Parents' materials were carried home from the schools and workshops by the students. Building supervisors, office staffs, and busdrivers were notified about the study and their assistance was solicited. Since the investigator was a former employee of the county program, familiarity with her name may have had a positive effect as well.

The post-test response rate was substantially lower than either the pre-test or intervention rate. (See Table 3.) Several factors may have contributed to this decrease. First the initial telephone contact preceded the receipt of pre-test forms by only a few days, while more than a month's time passed before post-test materials were received. Secondly circumstances including cold weather, student illness, and school closings compounded by the approaching holiday season may have combined to limit the post-test response.
General Attitude Level

The relatively high scores for all subjects, indicating positive attitudes toward career education, support claims of career education's timeliness and appeal. It also suggests that, in the opinion of the parents and professionals involved, career education is an appropriate approach to the training of moderately mentally retarded students.

This evidence counters Hoyt's (1975) concern that attitudinal barriers are impeding the growth and acceptance of the career education movement. Hoyt's comments regarding negative parent and teacher attitudes were not addressed to a specific population. It is possible that the parents and teachers of moderately mentally retarded students (or at least those from this county program) are more receptive to career education than is the general population.

Similarity Between Groups

The close parent-teacher agreement indicated by the lack of significant differences in their scores suggests that the career education concept holds an appeal for both groups, and that a career education program would enjoy both a broad base of support and the advantage of mutual parent-teacher commitment within this county program.

The similarity in parent and teacher attitudes was not unexpected, since nothing in the literature strongly
suggests that differences might exist. The absence of differences between groups would become a disadvantage in terms of validating this attitude scale (or any similar instrument). It would be difficult for an investigator to make a priori judgments regarding differences among groups of parents, teachers, or others.

Effects of Intervention

In the experimental portion of the study, treatment subjects were exposed to a booklet of readings pertaining to career education for the handicapped. It was postulated that the exposure to this information might have a positive effect on attitudes toward career education. Since results indicated a significant increase from pre- to post-test scores for the control group as well as the treatment group, however, the change cannot be attributed to the intervention treatment.

One possibility which must be recognized is that pre- and post-test forms of the scale were not equivalent for this sample, in spite of the statistical equivalence of their reliability demonstrated on the preliminary scale in the pilot study. (See Appendix A.)

An alternative explanation is that a Hawthorne effect was experienced by both groups. Perhaps the attention paid to the subjects and the exposure to information contained in the attitude scales were sufficient to effect the significant increase in post-test scores.
Correlations Between Attitudes and Child Age

Perhaps the most interesting result of this study was the relationship between child age and parent and teacher attitudes. The negative correlation between parents' scores and child age suggests that parents of pre-school children have more positive attitudes toward career education than parents of older children and adults. One might speculate that the pre-school parents experience relief and a boost in confidence when their mentally retarded children first enroll in school and begin to participate in a more independent life outside the home.

As these children progress through school and enter adulthood, their parents must adjust to many realities. Their moderately mentally retarded child may have experienced failure or limited progress in school; the child probably will not marry and have his/her own family; employment opportunities may be limited; potential for further growth may seem less promising than it did during earlier years.

It is interesting that teachers/instructors demonstrated an opposite pattern: teachers/instructors of teens and adults tended to express more positive attitudes toward career education than teachers of pre-school and school-age children. This pattern has some intuitive logic.
Pre-school teachers are exposed to young children with serious developmental delays. The children may be non-verbal, non-ambulatory, and very limited in terms of basic skills. So many pre-requisite skills must be developed that it might be difficult to visualize these children as self-sufficient adults.

By the time they reach the upper grades or sheltered workshops, however, these young adults have made considerable strides toward independence. Their instructors have chosen, as their profession, to work with adult retardates and to prepare them, insofar as possible, for independent life and work. By the nature of their job, these instructors should be more aware of the opportunities available to their clients. Since they deal on a daily basis with moderately mentally retarded employees in a work setting, it is not surprising that these instructors should have the more positive attitudes toward career education.

It should be noted that for this sample there was a tendency for teachers of younger children to have more teaching experience than teachers/instructors of older children or adults. (See Table 3.) It is possible that this difference also had an effect on the attitude scores.

Although an intuitive logic can be developed for both the negative parent attitude correlation with child age and the positive teacher attitude correlation with student
age, the literature offers no specific support or rebuttal to these findings.

It might be interesting to speculate about the effects of these attitude trends on programming and on the students themselves. In terms of programmatic support, it would appear that parents and teachers might be out of phase — parents more supportive than teachers at the pre-school and primary levels and instructors more supportive than parents at the teen and adult levels. Given the generally positive attitudes expressed overall, perhaps parent and teacher groups might balance out with the result of strong program support at all levels.

Hopefully, the same balancing effect would take place with the children. In the early years when the home is the primary environment, parent attitudes are the highest. In later years when school and work environments are more salient, teacher/instructor attitudes and expectation levels reach their peak.

Limitations of the Study

Several limitations must be recognized in this study. They are based on concerns about the instrument used, treatment effects, and possible biases.

Although the attitude scale designed for this study had adequate reliability, its validity is questionable.
As mentioned earlier, validation of the instrument will be difficult because no differences were found between groups.

Further, the pre- and post-test forms of the scale were not completely balanced. Although the forms were statistically equivalent in terms of item reliability, the post-test form yielded slightly higher scores than the pre-test form for this sample.

The significant increase from pre- to post-test scores evidenced by the entire sample suggests that the subjects' attitudes were influenced in some way. One possibility is that the pre-test had a treatment effect. Had a larger sample been used, a Solomon 4-way design (Winer, 1962) could have been employed to check for this effect.

A Hawthorne effect may have occurred as well, since subjects received personal attention and verbal and written praise for their participation.

In terms of possible biases, a Rosenthal effect may have been present. Although response forms were confidential, the subjects knew that program administrators were aware of the study. The experimenter was also known to many subjects as a former program employee. Perhaps these facts, in combination with the experimenter's presentation of the material, caused subjects to respond in the manner they assumed to be desired by the experimenter.
A non-response bias is also possible although the high response rate minimized this concern.

Recommendations for Further Research

First the instrument should be balanced and validated for parent and teacher groups. Further statistical analyses such as factor analysis might also be explored.

The results of this study indicated that both parents and teachers of moderately mentally retarded students expressed positive attitudes toward career education. The study should be replicated to determine whether these positive attitudes are typical of parents and teachers of moderately mentally retarded students in other county programs, and to determine how these subjects' responses compare to those of the general population or to various handicapped populations as measured on the same scale.

Modification of materials should be made systematically in an effort to eliminate possible experimenter bias and to strengthen the effect of the treatment materials.

The use of a Solomon 4-way design would be useful in investigating the treatment effect of the pre-test.

The correlation between parent and teacher attitudes and child age should be confirmed through replication with various populations, including moderately mentally retarded students, non-handicapped students, and students with other handicapping conditions. The relationship might be explored
more fully by investigating related variables such as:
age, sex, education level, and socio-economic status of
parents; professional preparation and amount of experience
for teachers/instructors; and birth order and sex of the
handicapped child.
APPENDIX A

Attitude Scale: Attitudes toward career education for moderately mentally retarded learners were measured by a Likert-type scale (Miller, 1977) designed for this study. A Likert-type format was selected for two principal reasons. First, the scarcity of available "experts" in the area of career education for moderately mentally retarded learners makes the development of a Thurstone scale (Miller, 1977) impractical. Second, Likert-type items are relatively simple to complete and therefore can be used with individuals with varying backgrounds and educational levels.

A comment is in order concerning the construction of items for the preliminary scale. Career education for moderately mentally retarded persons is a construct that represents several referents. The holistic concept of career education for moderately mentally retarded persons, vocational expectations for moderately mentally retarded persons, and career education are minor referents that constitute the stimulus concept. Respondents' opinions concerning these three minor referents and the principal referent seem to compose an attitude toward career education for moderately mentally retarded persons.

In constructing the scale, a pool of items was developed and edited for clarity and appropriateness. In developing the items, care was taken to represent each of the four
referents described above; to focus on the social occupational and leisure time aspects of career education; to address situations and concerns relevant to both parents and teachers/instructors; and to include positively and negatively phrased items. The past of approximately 100 items was edited and reduced to the 80 items judged to be best suited for the study. These 80 items constituted a preliminary scale that was administered to a selected sample of 100 adults.

The pilot sample consisted of several groups: teachers, teachers in training, parents of handicapped children and adults, and support personnel in programs for handicapped children. Teachers and teachers in training were members of an introductory course in special education at The Ohio State University. Parents were accessible through their children's participation in summer programs, and support personnel were accessed through the programs that employed them. The pilot sample was similar to the sample with whom the final version of the scale was to be used.

The responses of the subjects in the pilot sample to the items on the preliminary scale were subjected to an item analysis. Subject identification numbers and responses to each item were keystroked onto cards and analyzed through use of the computer facilities at The Ohio State University. A Kuder-Richardson 20 statistic was computed for each item, as well as for the entire scale.
The preliminary scale is presented on the following pages.
Career Education for
Moderately Mentally Retarded Persons

The purpose of this survey is to find out your opinion about career education for moderately mentally retarded persons. To make your task somewhat easier, we are proposing the following definitions:

**Career Education** is an approach to education that emphasizes vocational, social, and recreational skills. The basic goal of a career education program is to make work possible, meaningful, and satisfying for each individual. Through career education, students gain a better understanding of themselves and the world of work, and develop the skills and habits that will enable them to relate to other people and use their time productively.

**Moderately mentally retarded** persons are substantially below average in their intellectual functioning and adaptive behavior. They may demonstrate social and emotional immaturity, deficient communication skills, and limited skills in dealing with complex ideas. These individuals are frequently called trainable mentally retarded and are usually educated in special programs or classrooms.

Instructions: Read each item carefully, and circle the response at the right hand side of the page that most closely corresponds to your opinion. The meanings for the abbreviations at the right hand side of the page are presented below:

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree
SA       A       N       D       SD
1. Career education is probably not the best way to prepare moderately mentally retarded children for adult life.

2. Moderately mentally retarded persons can perform most of the jobs that non-handicapped persons can.

3. I would prefer that moderately mentally retarded persons not hold jobs that could be filled by non-retarded persons.

4. Career education places too much pressure on children to grow up.

5. I would not socialize with a moderately mentally retarded co-worker.

6. Moderately mentally retarded persons should socially interact with one another rather than with non-disabled persons.

7. Career education should be provided only to those moderately mentally retarded children who have a good chance of finding a job and living independently.

8. Most moderately mentally retarded children probably don't have the basic abilities necessary to succeed in a career education program.

9. An institution is the only place for a moderately mentally retarded person to live.

10. Moderately mentally retarded males should not work in jobs in which they would interact with women and girls.

11. Career education is an important part of the solution to this country's unemployment problem.
12. A certain number and type of job should be reserved for moderately mentally retarded persons.

13. There is no reason to think that career education will achieve anything more than vocational education has.

14. I would be a little embarrassed to be seen dining in public with a moderately mentally retarded person.

15. Funds should be diverted from other areas into career education for moderately mentally retarded persons.

16. Career education should be the most important aspect of educating moderately mentally retarded children.

17. In the long run, career education will make no real difference in a person's productivity.

18. Moderately mentally retarded persons are more similar to non-disabled persons than dissimilar.

19. The only way for moderately mentally retarded children to learn to use their leisure time productively is through a career education program.

20. Moderately mentally retarded persons have less potential than any other type of handicapped person.

21. Career education is more socialistic than democratic.

22. I am comfortable in the presence of a moderately mentally retarded person.

23. Trade unions should be encouraged to offer apprenticeships to moderately mentally retarded persons.
24. Learning basic academic skills is more important than career education for moderately mentally retarded persons.

25. I wholeheartedly support spending tax dollars to teach moderately mentally retarded persons to use their leisure time better.

26. It is unrealistic to think that moderately mentally retarded persons can perform other than menial tasks.

27. Career education is taking over some training that should be provided by the home or the community.

28. In several respects, moderately mentally retarded persons are a burden on society.

29. Basic vocational training should be provided to moderately mentally retarded children rather than career education.

30. I would prefer that my children have some contact with moderately mentally retarded children.

31. Students in career education programs spend too much time outside their classrooms.

32. Even with special training, most moderately mentally retarded persons could not hold a job.

33. Career education is just an educational fad that will soon be replaced by another.

34. The benefits that will result from career education for moderately mentally retarded persons are probably not worth the resources invested in it.
35. Moderately mentally retarded persons are probably happiest when they are with others like themselves.

36. Career education is just another diversion from the basic academic training children need.

37. Moderately mentally retarded persons enjoy themselves to the same extent as do non-retarded persons.

38. I prefer traditional education to career education.

39. There are many jobs for which moderately mentally retarded persons are suited.

40. Moderately mentally retarded persons should be discouraged from having children.

41. Special assistance will be needed by moderately mentally retarded persons throughout their lives.

42. It is unreasonable to assume that career education can help moderately mentally retarded persons become contributing members of society.

43. Moderately mentally retarded persons have many more capabilities than are currently expected.

44. There are probably better ways to educate moderately mentally retarded children than through career education.

45. Moderately mentally retarded persons do little with their leisure time.

46. There are too many people out of work these days to worry about career education for moderately mentally retarded persons.

47. Career education should be considered a top national priority.
48. There are probably more jobs that moderately mentally retarded persons can perform than we currently realize.

49. Clerical positions could probably be filled by moderately mentally retarded persons.

50. Career education for moderately mentally retarded persons sounds much more useful than most of the other educational innovations with which I am familiar.

51. Most moderately mentally retarded persons will probably never become self-sufficient.

52. The skills taught in career education programs will be obsolete by the time students enter the work force.

53. My school district should have a career education program.

54. Moderately mentally retarded persons would never be able to manage their own finances.

55. An employer should expect as much from moderately mentally retarded workers as non-retarded workers.

56. Moderately mentally retarded children will probably never use the skills they learn in a career education program.

57. When moderately mentally retarded persons are hired, it is more out of pity than because they can do the work.

58. Moderately mentally retarded persons are prone to emotional outbursts.

59. The goals of career education are too nebulous and idealistic to be translated into an effective program.
60. I would adopt a moderately mentally retarded child.  
61. Service jobs such as dish washing are the best employment for moderately mentally retarded persons.  
62. Career education will be harmful for some moderately mentally retarded children in that it may raise their expectations beyond their abilities.  
63. Moderately mentally retarded persons need so much supervision that it is impractical to hire them.  
64. Career education probably won't make significant improvements in the quality of education.  
65. Moderately mentally retarded children should be educated with children of normal intelligence.  
66. A moderately mentally retarded person would have very little trouble using public transportation.  
67. Moderately mentally retarded persons could learn to work at the same rate as do non-retarded workers.  
68. Very little can be done to improve the appearance of moderately mentally retarded persons.  
69. Moderately mentally retarded persons should be afforded all the rights to which non-handicapped persons are privileged.  
70. A career education program is the best way to teach moderately mentally retarded children independent living skills.  
71. It would be tough to convince me that career education will work.
72. Moderately mentally retarded persons should not be trained for jobs in which they would interact with non-handicapped persons.

73. Career education is another example of Federal interference in education.

74. Moderately mentally retarded persons should only be trained for jobs that are too boring for non-retarded people.

75. Career education should be a mandatory part of every child's schooling.

76. Realistically, career education will not make any major differences in the life of a moderately mentally retarded person.

77. Career education is too expensive for most school districts.

78. Moderately mentally retarded persons always require a great deal of supervision.

79. Career education is the most practical way of educating all children.

80. Moderately mentally retarded children really don't need to be made aware of a wide variety of jobs.
Analysis of the Preliminary Scale

The 80-item preliminary attitude scale was administered to a reliability sample of 100 adults, 94 of whom completed and returned the scale. The responses were subjected to an item analysis which yielded a Kuder-Richardson test reliability estimate of 0.9423 for the entire scale and a separate reliability estimate for each item. These values ranged from 0.0414 to 0.7083 and are listed in the second column below. The reliability values were rank-ordered with 1 representing the highest value and 80 representing the lowest. This rank ordering is presented in the third column below.

The 20 lowest-ranking items were eliminated, thus reducing the pool of items to 60, with reliability values ranging from 0.3284 to 0.7083. Each of these 60 items was assigned to either the pre- or post-treatment scale in such a way that the two scales were balanced in terms of validity rankings (see the fourth and fifth columns below). The pre- and post-treatment forms were also balanced in terms of the four item referents: career education for the moderately mentally retarded (CE/MMR), career education (CE), moderate mental retardation (MMR), and vocational expectation levels (EXPCT). The referent for each item is presented in the last column below.
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APPENDIX B

PRELIMINARY CORRESPONDENCE
RESEARCH INVOLVING HUMAN SUBJECTS

PROPOSED USE OF HUMAN SUBJECTS: ACTION OF THE REVIEW COMMITTEE

The Behavioral & Social Science Review Committee has taken the following action:

1. Approve
2. Approve with Conditions
3. Disapprove

with regard to the employment of human subjects in the proposed research entitled:

Parent and Teacher Attitudes Toward Career Education for Moderately Mentally Retarded Students

Vance W. Cotter/Kristine R. Chaffee is listed as the principal investigator.

The conditions, if any, are attached and are signed by the committee chairperson and by the principal investigator. If disapproved, the reasons are attached and are signed by the committee chairperson.

It is the responsibility of the principal investigator to retain a copy of each signed consent form for at least four (4) years beyond the termination of the subject's participation in the proposed activity. Should the principal investigator leave the University, signed consent forms are to be transferred to the Human Subjects Review Committee for the required retention period.

Date August 26, 1977
Signed

(Chairperson)
MEMO

To: Stephen Pleasnick
From: Bruce Hust
Re: Research Proposal of Kristine Chaffee
Date: September 20, 1977

I have reviewed Kristine's proposal, discussed with her particular items of concern, and have arranged for their consideration in the study. I, therefore, recommend your full approval and will be available for any question.

Research Proposal
Approved

Stephen S. Pleasnick
9/20/77
MEMORANDUM

TO:  Ms. Nancy Mosure
     Mrs. Pauline Kitchton
     Mrs. Thelma Palmer
     Mrs. Juanita Francis
     Mrs. Thealka Lehman
     Ms. Cheryl Phipps
     Mr. Bill Schnack
     Mr. Mike Brickey

FROM: Kristine Koster Chaffee

DATE: October 4, 1977

For Your Information:

I am preparing to begin my dissertation research on parent and teacher attitudes toward career education for moderately mentally retarded students.

My research proposal has been reviewed and approved by my dissertation committee, by Mr. Pleasnick, by Mr. Bruce Hust of the FCPMR Psychology Department, and by the Ohio State University Human Subjects Research Committee.

I will be contacting teachers/instructors in each of your buildings, and asking them to participate in the study. Half of the teachers/instructors will be asked to complete two attitude survey forms. The other half will be asked, in addition to completing the two forms, to read a booklet of materials on career education.

The teachers/instructors will also be sending survey forms and reading materials home to the parents of one student in each of their classrooms/work areas.

Teacher/instructor participation will be completely voluntary, and all identifying information will be totally confidential.

I look forward to working with your staff, and thank you in anticipation of your cooperation.

If you have questions or concerns about this study, please feel free to contact me at 466-4161, or call Bruce Hust in the Psychology Department.

KKC: 1k

cc: S.G. Pleasnick
    B.E. Hust
    A.L. Johnson
TO: FCPMR Busdrivers
FROM: Kristine Chaffee
DATE: October 26, 1977

I am conducting a study that involves a number of parents and teachers in the Franklin County Program. I will be communicating with the parents through written materials which will be carried home by some of the children on your bus routes. It is very important that these materials reach the parents and be returned to school by the deadline dates. I would like to request your help in reminding the parents and students about these messages.

The schedule below indicates which children will be involved, and the dates when materials will be sent to and from their homes. I appreciate anything you might be able to do to help in this matter.

Many thanks!

<table>
<thead>
<tr>
<th>Message sent home from school</th>
<th>Message due back at school</th>
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</thead>
<tbody>
<tr>
<td>October 27 or 28</td>
<td>November 2</td>
</tr>
<tr>
<td>*November 3 or 4</td>
<td>November 16</td>
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<tr>
<td>December 1 or 2</td>
<td>December 7</td>
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</tbody>
</table>
APPENDIX C

PRE-INTERVENTION MATERIALS
MEMORANDUM

TO: Ms. Nancy Mosure  
    Ms. Pauline Kitchton  
    Mrs. Thelma Palmer  
    Mrs. Juanita Francis  
    Mrs. Thealka Lehman  
    Ms. Cheryl Phipps  
    Mr. Bill Schnack  
    Mr. Mike Brickey

FROM: Kristine Koster Chaffee

DATE: October 26, 1977

RE: Career Education Dissertation Research

Enclosed please find, for your information, a list of the randomly selected teachers/instructors in your building who have agreed to participate as subjects in my research. A sample copy of the first set of materials is also enclosed.

The teachers/instructors will be completing their copy of the attitude scale, sending the parent copy home with a student, and returning both completed forms to your office where I will pick them up on November 3 or 4. (Preschool teachers will keep their materials in their classrooms.)

The "experimental" group of teachers/instructors will then receive a second set of materials, which will be collected on November 17 and 18.

(Please note: the teachers/instructors are not aware of the treatment and control conditions. Only the requirements of their own participation have been explained.)

The final attitude scale will be distributed to all participants on December 1 and 2, and collected on December 3 and 9.

You will receive sample copies of all materials, and I will be happy to share the results of the study as soon as they are available.

Thank you for your cooperation and support.

KKC:sly
Enclosures

cc: S.G. Pleasnick  
    B.E. Hust  
    A.L. Johnson
October 27, 1977

Dear Teacher,

Thank you for your willingness to participate in my study of Career Education and Moderately Mentally Retarded students. This packet contains the materials we discussed in our recent telephone conversation.

Please observe the following procedures:

1. Please read and sign the attached consent form.

2. Find your copy of the attitude scale. Please read instructions and complete the form at your earliest convenience.

3. In a separate envelope, you will find a copy of the same scale with an explanatory letter for the parent identified from your classroom. Please send this envelope home with your student today. The parent is asked to complete his/her form and return it to you next week.

4. When you receive the completed parent forms, please return them, together with the forms you completed, to your school/workshop office.

(Pre-school teachers, please keep forms in your rooms)

5. I will pick up the completed forms on November 3 or 4.

6. If you have problems or questions about this procedure, please do not hesitate to contact me. I can be reached at the Ohio Department of Education (466-4161) on Monday, Tuesday, and Wednesday.

Again, my thanks for your cooperation.

Sincerely,

Kristine Koster Chaffee

Enclosure
Dear Parent,

Thank you for your willingness to participate in my study of Career Education and Moderately Mentally Retarded Students. The enclosed form is the attitude scale we discussed in our recent telephone conversation. Please observe the following procedures:

1. Please read and sign the attached consent form.
2. Find your copy of the attitude scale. Please read the instructions and complete the form at your earliest convenience.
3. Send the completed forms back to school or work with your child no later than Wednesday, November 2.
4. If you have problems or questions about the form, please call me. I can be reached at the Ohio Department of Education (466-4161) on Monday, Tuesday, and Wednesday.

Thank you for your cooperation.

Sincerely,

Kristine Koster Chaffee

Enclosure
RESEARCH INVOLVING HUMAN SUBJECTS
CONSENT TO SERVE AS A SUBJECT IN RESEARCH

BEHAVIORAL AND SURVEY RESEARCH FORM

I agree to participate as a subject in the research investigation entitled: "Parent and Teacher Attitudes Toward Career Education for Moderately Mentally Retarded Students."

The nature and general purpose of the research procedure have been explained to me. This study is to be conducted by Kristine Chaffee, a doctoral student working under the direction of Dr. Vance Cotter, a faculty member with the Faculty for Exceptional Children at The Ohio State University.

I understand that Mrs. Chaffee will answer any further inquiries I make concerning this procedure. I understand my identity will not be revealed in any publication, document, recording, video-tape, photograph, computer data storage, or in any other way which relates to this research. Finally, I understand that I am free to withdraw my consent and discontinue participation at any time following the notification of the investigator.

Signed ____________________________
(Subject)

Date ____________________________

Kristine Kristin Chaffee
Investigator
Career Education for

Moderately Mentally Retarded Persons

The purpose of this survey is to find out your opinion about career education for moderately mentally retarded persons. To make your task somewhat easier, we are proposing the following definitions:

Career Education is an approach to education that emphasizes vocational, social, and recreational skills. The basic goal of a career education program is to make work possible, meaningful, and satisfying for each individual. Through career education, students gain a better understanding of themselves and the world of work, and develop the skills and habits that will enable them to relate to other people and use their time productively.

Moderately mentally retarded persons are substantially below average in their intellectual functioning and adaptive behavior. They may demonstrate social and emotional immaturity, deficient communication skills, and limited skills in dealing with complex ideas. These individuals are frequently called trainable mentally retarded and are usually educated in special mentally retarded and are usually programs or classrooms.

Instructions: Read each item carefully, and circle the response at the right hand side of the page that most closely corresponds to your opinion. The meanings for the abbreviations at the right hand side of the page are presented below:

Strongly Agree Agree Neutral Disagree Strongly Disagree
SA       A       N       D      SD

SA
A
N
D
SD
1. There is no reason to think that career education will achieve anything more than vocational education has.

2. Even with special training, most moderately mentally retarded persons could not hold a job.

3. I would be a little embarrassed to be seen dining in public with a moderately mentally retarded person.

4. My school district should have a career education program.

5. The goals of career education are too nebulous and idealistic to be translated into an effective program.

6. Clerical positions could probably be filled by moderately mentally retarded persons.

7. I prefer traditional education to career education.

8. Basic vocational training should be provided to moderately mentally retarded children rather than career education.

9. Moderately mentally retarded persons should only be trained for jobs that are too boring for non-retarded people.

10. There are probably more jobs that moderately mentally retarded persons can perform than we currently realize.

11. Moderately mentally retarded persons should socially interact with one another rather than with non-disabled persons.
12. Funds should be diverted from other areas into career education for moderately mentally retarded persons.

13. Service jobs such as dish washing are the best employment for moderately mentally retarded persons.

14. Trade unions should be encouraged to offer apprenticeships to moderately mentally retarded persons.

15. Moderately mentally retarded persons are prone to emotional outbursts.

16. Moderately mentally retarded persons can perform most of the jobs that non-handicapped persons can.

17. Career education probably won't make significant improvements in the quality of education.

18. Career education will be harmful for some moderately mentally retarded children in that it may raise their expectations beyond their abilities.

19. Career education should be provided only to those moderately mentally retarded children who have a good chance of finding a job and living independently.

20. Career education should be considered a top national priority.

21. Moderately mentally retarded children will probably never use the skills they learn in a career education program.

22. The skills taught in career education programs will be obsolete by the time students enter the work force.
23. Career education should be the most important aspect of educating moderately mentally retarded children.

24. Moderately mentally retarded children really don't need to be made aware of a wide variety of jobs.

25. Moderately mentally retarded persons are probably happiest when they are with others like themselves.

26. It would be tough to convince me that career education will work.

27. I would adopt a moderately mentally retarded child.

28. Realistically, career education will not make any major differences in the life of a moderately mentally retarded persons.

29. Very little can be done to improve the appearance of moderately mentally retarded persons.

30. Moderately mentally retarded persons should be afforded all the rights to which non-handicapped persons are privileged.
Thank you for completing the attitude scale.

Please provide the following information for statistical purposes:

**PARENTS:**

Age of son/daughter in the Franklin County Program:

Number of children in your family: __________

Who completed this form: Mother or Father (circle one)

**TEACHERS/INSTRUCTORS:**

Level taught: ________________

Age range of students: ________________

Number of years teaching experience: ________________

Are you: Male or Female (circle one)
MEMORANDUM

TO:     Ms. Nancy Mosure
        Mrs. Pauline Kitchton
        Mrs. Theima Palmer
        Mrs. Juanita Francis

FROM:   Kristine Koster Chaffee

DATE:   November 3, 1977

SUBJECT: Career Education Dissertation Research

Enclosed please find, for your information, a copy of the materials distributed to the parents and teachers participating as "treatment" subjects in my study.

Please do not share these materials with your staff before December 15.

Thank you.

KKC:sly
Enclosure

cc:     S.G. Pleasnick
        B.E. Hust
        A.L. Johnson
November 3, 1977

Dear Teacher/Instructor,

Thank you for your assistance with the first phase of my study. This packet includes the materials you will need for the second phase. Please observe the following procedures:

1. Find the enclosed booklet on "Career Education". Please read and follow the instructions it contains. (You will be asked to read the booklet and to complete a checksheet at the end -- Please do this at your earliest convenience.)

2. In a separate envelope, you will find a second copy of the booklet, with an explanatory letter for the parent who is participating in the study with you. Please send this envelope home with your student. The parent is asked to complete the readings and send the checksheet back to you by November 17.

3. When you receive the completed checksheet from the parent, please return it, together with your completed copy, to your school/workshop office. (Pre-school teachers, please keep the checksheets in your classroom.)

4. I will pick up the checksheets on November 17 and 18.

5. If you have problems or questions about this procedure, please contact me at the Ohio Department of Education (466-4161).

I appreciate the time you will take from your busy schedule to help with this important aspect of the study.

Sincerely,

Kristine Koster Chaffee

Enclosures
November 3, 1977

Dear Parent,

Thank you for your assistance with the first phase of my study. This packet includes the materials you will need for the second portion. Please observe the following procedures:

1. Find the enclosed booklet on Career Education. Please read it at your earliest convenience.
2. Complete the checksheet according to the instructions provided.
3. Send the completed checksheet to school or work with your son or daughter no later than Wednesday, November 16.
4. If you have problems or questions, please contact me at the Ohio Department of Education (466-4161).

I appreciate the time you will take from your busy schedule to participate in this study. I hope you will find the materials interesting. Thank you for your continued cooperation.

Sincerely,

Kristine Koster Chaffee

Enclosures
introducing...

CAREER

EDUCATION
Introduction

The purpose of this booklet is to acquaint you with the career education concept. The term "career education" has been used quite frequently in recent years, but since it is such a broad concept, many definitions have been developed, and the term may mean different things to different people. These readings will attempt to clarify what career education is and is not.

The career education approach is an attempt to make a student's educational experiences relevant to his or her needs and interests in daily life. Its goal is to prepare students for successful functioning, both at home and at work. This is a very practical approach that applies to children and adults, and is especially important for individuals with handicapping conditions or developmental delays.

For the student with mental retardation, special emphasis is needed in the areas of independent functioning, good work habits and self management skills. Career education provides this emphasis. For many mentally retarded students, traditional academic instruction is not meaningful or useful unless it is applied to real life situations. Career education provides this link between academics and the "real world."

Through career education, a mentally retarded student can learn about his own abilities and limitations and about
the range of opportunities available to him. The student can develop the attitudes and skills necessary to use his or her time in a productive and satisfying way.

Kenneth B. Hoyt, Associate Commissioner of the U.S. Office of Education, was an early advocate of the career education approach and is one of the professional educators who recognize the importance of career education for the handicapped. His paper on career education for the handicapped is included in this booklet.

Please read Hoyt's article and the summaries of what career education "is" and "is not." Then follow the directions on the checksheet at the end of the booklet.

Hope you enjoy the reading!
CAREER EDUCATION IS ---

--- a broad approach to education,
--- for all learners, regardless of age, sex, race, or educational goals,
--- inclusive of all kinds of careers, salaried and nonsalaried, full-time or part-time,
--- compatible with educational goals,
--- an emphasis on active rather than passive learning,
--- useful with all types of teaching techniques and circumstances,
--- an approach to motivate learners and increase achievement,
--- geared to imparting social, psychological, educational, economical, and manual skills,
--- aimed at the continuing development of each individual through lifelong educational experiences,
--- a link between education and the real world,
--- based on awareness of self and the environment,
--- experiences about living, learning, thinking, deciding, and adapting,
--- education which can be applied throughout life in a variety of circumstances.
CAREER EDUCATION IS ---

--- NOT simply vocational education in a new package,
--- NOT a negation of traditional educational objectives,
--- NOT just for students in junior high or high school,
--- NOT a course or series of courses,
--- NOT just for non-handicapped students,
--- NOT a subject to be taught,
--- NOT limited to teaching saleable skills,
--- NOT only for the disadvantaged,
--- NOT primarily for developing manpower,
--- NOT a complete change from present educational practices,
--- NOT restricted to any single teaching technique,
--- NOT exclusively education for economic objectives,
--- NOT a way of elimination or changing all that has been included in academic areas.

Introduction

Career Education represents a response to a call for educational reform. This call has arisen from a variety of sources, each of which has voiced dissatisfaction with American education as it currently exists. Such sources include students, parents, the business-labor-industry-professional community, and the general public. Special segments of the population, including the economically disadvantaged, minorities, the handicapped, and gifted persons have also expressed deep dissatisfaction with both the appropriateness and the adequacy of educational opportunities that are made available to them. While their specific concerns vary, all seem to agree that American education is in need of major reform at all levels. Career Education is properly viewed as one of several possible responses that could be given to this call.

Career Education seeks to respond to this call for change through making education as preparation for work both a prominent and a permanent goal of our entire educational system. To accomplish this goal, career education seeks first to unite all segments of the formal educational system in this common effort. To this, we seek to add the collaborative efforts of both the business-labor-industry-professional community and the home and family structure in ways that enhance attainment of this goal for all persons through a broad range of community services and activities.

From the beginning, career education advocates have proclaimed that they seek to serve all persons of all ages in all kinds of educational settings. In practice, we have seen career education programs primarily limited to elementary and secondary school youth enrolled in regular public school programs. This situation cannot continue if the promises of career education are to be attained. In this article, the problem will be illustrated through considering implications of career education for handicapped persons.

*These remarks represent personal thoughts of the author and, in no way, are intended to imply or represent an official position of the U.S. Office of Education.
Basic Definitions Essential for Understanding Career Education

Six basic words must be redefined in order to understand the concept of career education itself. These six words are: (1) "work"; (2) "career"; (3) "vocation"; (4) "occupation"; (5) "leisure"; (6) "education".

"Work" is conscious effort aimed at producing benefits for oneself and/or for oneself and others. As such, it is unimportant whether such effort is paid or unpaid in nature. What is important is that it represent the basic need of all human beings to achieve - to accomplish - to do something productive that allows the individual to discover both who he/she is and why he/she is. With this definition, work is properly viewed as a human right - not as a societal obligation.

"Career" is the totality of work one does in his or her lifetime. Thus, any person can have only one career. That career typically begins prior to entering formal schooling and continues well into the retirement years.

"Vocation" is one's primary work role at any given point in time. Vocations include paid employment, but they also extend to unpaid work roles. For example, we can speak of the "vocation" of the student, the full-time volunteer worker, or the full-time homemaker just as easily as we can speak about the "vocation" of the plumber, the physician, or the engineer.

"Occupation" is one's primary work role in the world of paid employment. Economic returns are always considered among the work values of persons engaged in occupations although these might not be considered at all by persons in certain vocations. The occupations of many persons will be synonymous with their vocations. One can never have an occupation without having a vocation although, of course, one can have a "vocation" without being engaged in an "occupation".

"Leisure" consists of activities, other than sleeping, in which one engages when not performing in his or her vocation. Thus, "leisure" holds possibilities for both "work" and for "play".

"Education" consists of all those activities and experiences through which one learns. As such, it is obviously a lifelong process and considerably broader in meaning than the term "schooling".

All that follows is based on an assumption that these six basic words are understood and their meanings agreed upon. Those who disagree with one or more of these definitions will necessarily find themselves disagreeing with much of the remainder of this presentation.
With the way in which these six terms are defined, "career education's" definition, in a generic sense, becomes simple and straightforward. Career Education consists of all those activities and experiences through which one learns about work. As such, it makes no restrictions in meaning whether one speaks about work of the homemaker, the musician, the lawyer, or the bricklayer. Some work will require advanced college degrees while other work may include no formal schooling of any kind. Some work will be in the form of primary work roles, paid or unpaid, while other work will be carried out as part of one's leisure time. To the extent that work is judged "successful", it does typically - and, in these times, increasingly - require some learned set of vocational skills.

Further Consideration of the Meaning of Work

The preceding definition of "career education" brings us back to further consideration of the meaning and implications of the four letter word "work". Work, as used here, is a concept available only to human beings in that it is restricted to conscious effort - to something that the individual thinks about and chooses to do. It is this quality of conscious choice that most clearly distinguishes the word "work" from the word "labor". That is, "labor", like "work", may very well result in production of benefits, but it does not carry with it the connotation of something that the individual consciously chooses to do. Instead, "labor" is more accurately regarded as forced, involuntary effort that lacks personal meaningfulness and significance for those who perform it.

Why do people work? Answers given to this question can be grouped into three broad classifications of reasons - economic, sociological, and psychological. Work, in the world of paid employment, always includes economic reasons and, if maximally meaningful to the individual, carries sociological and psychological reasons as well. Economic reasons, of course, center around the needs most of us have to accumulate income so that we can purchase goods, products, or services produced through the work of others. Sociological reasons center around recognition that one's work contributes to the goals of our society in a positive way - that what one does has benefit for one's fellow human beings. Psychological reasons center around personal recognition of one's accomplishments - around the feeling of being someone through being able to say that one has accomplished something.
While most persons experience economic reasons for working and many, although not all, can readily observe the sociological significance of the work that they do, the single reason for working that can be said to apply to all persons is that which centers around the psychological dimension. Former President Lyndon Johnson perhaps expressed this need for work as clearly as anyone when, in a speech, he said

"To hunger for use and to go unused is the greatest hunger of all."

He was, of course, referring to the human need of all human beings to feel that someone needs them for something - that it does matter to someone that they exist - that, because they are alive, the world is, in some way and to some degree, better off.

The concerns and scope of career education extend to all three of these basic reasons for working. It is this breadth of concern that enables career education to say that it is concerned with all persons of all ages in all settings from all levels of education background. The basic premise of career education is that the need to work is a basic human need for all human beings. That is why we refer to work as a "human right" rather than as a "societal obligation".

Career Education and Handicapped Persons

In a recent paper, C. Samuel Barone, USOE Bureau of Education for the Handicapped, presented the following predictions regarding the approximately 2.5 million handicapped youth who will leave our school systems in the next four years:

525,000 - 21% - will be either fully employed or enrolled in college.
1,000,000 - 40% - Will be underemployed and at the poverty level.
200,000 - 8% - will be in their home community and idle much of the time.
650,000 - 26% - will be unemployed and on welfare.
75,000 - 3% - will be totally dependent and institutionalized.

Predictions, such as these, raise very grave concerns for those dedicated to the career education movement. The prediction that one million of these handicapped youth will be underemployed is a very serious matter indeed. The concept of underemployment is one that pictures a person as possessing greater degrees of productive capability than the tasks he or she is asked to perform routinely require. Underemployment leads to boredom on the job and is seen by
many as a major contributor to worker alienation in our society at the present time. To predict that this will be the fate of 2 out of every 5 handicapped youth leaving our school system in the next four years can only be regarded as a serious indictment of our educational system and of the larger society.

We have, for far too long, seemed to act as though a handicapped person should be both pleased with and grateful for any kind of work society provides. Unlike other persons, we seem to assume that, if a person is handicapped, boredom on a job is impossible. Worse, much of society has seemed to assume that, while most persons should seek work compatible with their interests and aptitudes, such considerations are not necessary when seeking to find employment for handicapped persons. If any job in the world of paid employment can be found for the handicapped person, we seem far too often to be personally relieved and surprised when the handicapped person is anything less than effusively grateful.

Similarly, we seem to assume that those handicapped persons who are not employed in the world of paid employment are not and cannot be working. This is, in the philosophy of career education, both false and wrong. We know that, for example, the fact that a person is unemployed and on welfare certainly does not mean, for many such persons, that they do not work. There is a very great deal of work being carried out in many welfare homes, the results of which are readily apparent to any who visit in such homes. Yet, because persons on welfare are not engaged in the world of paid employment, society seems to assume that they are not working. Even more tragic, some seem to assume that people on welfare do not want to work. If the human need to work pictured here has any validity at all, it certainly applies to persons on welfare just as to all other persons.

The 200,000 youth who are predicted to be in their home community and idle much of the time can certainly not be written off as persons with no interest in working or no personal needs to work. Something should be provided for such persons, whether it be paid or unpaid work. The field of the handicapped has, for years, been promoting the concept of the sheltered workshop for those who are unable to compete effectively in the world of paid employment. The prime rationale for the sheltered workshop must surely lie in recognition of the human need for work that is being discussed here. If
this concept is valid for those in sheltered workshops, it is certainly also valid for those who are not.

Career education seeks to make work possible, meaningful, and satisfying for all individuals. To do so for handicapped persons demands, first of all, that we regard their right to choose from among the widest possible set of opportunities equally as important as for any other individual. We seem too often to be satisfied when we have found something that a handicapped person can do. We should be dissatisfied until and unless we have explored, to the fullest possible extent, the total array of work that might be possible for a given handicapped person. To stop prior to reaching this point is being less than fair to the handicapped person and to the larger society.

One further basic principle of the career education movement would seem to have some relevance for handicapped persons. This is the principle that holds that we should seek to emphasize the individual's successes, not his or her failures. In career education, a conscientious attempt is made to emphasize accomplishments - attainments - achievements - doing. This can best be carried out by refusing to emphasize failures and shortcomings. It would seem that this principle holds some positive potential for working with handicapped persons who, far too often, are made well aware of their limitations and, in the process, effectively limited in discovering their talents. We have, it would seem, been sometimes too much concerned about helping the handicapped realize and appreciate how much society is doing for them. In so doing, we run the risk of de-emphasizing, for many handicapped persons, how much each can do for himself or herself.

Concluding Remarks

Handicapped persons are as deserving of whatever benefits career education has to offer as are any other individuals. To date, not many career education programs have made the kinds of special efforts necessary in order to make career education a reality for handicapped persons. It is hoped that these remarks may stimulate both those in career education and those working in the field of the handicapped to work together in order to correct this lack of attention. The need to work is a human need of all human beings. Handicapped persons are human beings.
HERE ARE SOME EXAMPLES OF CAREER EDUCATION ACTIVITIES:

Learning about different kinds of work
   -- What do Mom & Dad do?
   -- Who works in the neighborhood? (grocer, mailman, busdriver, doctor, etc.)

Developing positive attitudes toward work
   -- Picking up own toys or clothes
   -- Helping with household "chores"

Mastering basic self care skills
   -- Feeding, dressing, toileting
   -- Grooming, selecting clothes, preparing food

Understanding own abilities and weaknesses
   -- Knowing whom and how to ask for help
   -- Taking pride in own accomplishments

Learning to get along with others
   -- Communication
   -- Cooperation

Developing good work habits
   -- Punctuality, neatness
   -- Following directions

Learning sports, games or activities for leisure time

Developing specific job skills

Maintaining a realistic and positive attitude toward self and work
CAREER EDUCATION CHECKSHEET

When you have finished reading this booklet, please complete the items below: (The answers are provided on the last page -- but try not to peek!)

1. True or False:
   a) ___ A handicapped worker cannot become bored with his job.
   b) ___ People work for economic, sociological and psychological reasons.
   c) ___ Most handicapped people cannot work.
   d) ___ A handicapped person should be grateful for whatever kind of job society gives him.
   e) ___ "Leisure" can include both work and play.
   f) ___ Handicapped persons have a right to work.

2. Match the words and their definitions:

   ___ work
   ___ career
   ___ occupation
   ___ leisure
   ___ career education
   __ a) the totality of work one does in his or her lifetime.
   __ b) all those activities and experiences through which one learns about work.
   __ c) activities, other than sleeping, in which one engages when not performing in his or her vocation.
   __ d) one's primary work role in the world of paid employment.
   __ e) conscious effort aimed at producing benefits for oneself and others.
3. Place a check mark (✓) beside each phrase that describes what career education IS:
   a) ____ A link between education and the real world.
   b) ____ Useful with all types of teaching techniques.
   c) ____ Aimed only at paid work.
   d) ____ An approach to motivate learners and increase achievement.
   e) ____ A complete change from present educational practices.
   f) ____ Broader than vocational education, and is for all learners regardless of age, sex, race, or educational goals.

4. The Bureau of Education for the Handicapped predicted that one million handicapped youth (40% of those leaving school in a four-year period) would be ____________.
   a. unemployed
   b. underemployed
   c. unemployable
   d. overemployed

5. Hoyt accuses society of holding negative attitudes toward employment of the handicapped. Which of the following points does he make?
   a) ____ We falsely assume that a handicapped worker cannot become bored with his job.
   b) ____ It is wrong to assume that handicapped persons who are not gainfully employed are not and cannot be working.
   c) ____ We should emphasize what a handicapped person CAN do, rather than focusing on his limitations.
Parents: When you complete these questions, please return the checksheet to your child's teacher.

Teachers/Instructors: Please return both your completed copy of the checklist and the parent copy to Kristine Chaffee.

Thanks for your help!

P.S. The reading materials are yours if you want them. I will need only the checksheets.
MEMORANDUM

TO: Ms. Nancy Mosure
    Mrs. Pauline Kitchton
    Mrs. Theima Palmer
    Mrs. Juanita Francis

FROM: Kristine Koster Chaffee

DATE: November 10, 1977

SUBJECT: Career Education Dissertation Research

Please find attached, for your information, copies of the reminders sent to the parents and teachers/instructors who are participating as "treatment" subjects in my study.

KKC: lk

Enclosures

cc: S.G. Pleasnick
    B.E. Hust
    A.L. Johnson
Dear Teacher/Instructor,

I hope you are enjoying your booklet of readings on Career Education. I know that November is a terribly busy time for you, and I appreciate the time you're spending with these materials. I'll look forward to receiving your completed checksheet (and the one from the parent of your student) on November 17.

If your parent has not yet returned his/her checksheet, please send the enclosed reminder home with your student today.

Thanks so much for your help.

Sincerely,

Kristine Koster Chaffee

Enclosure
Dear Parent,

I hope that you received your booklet of readings on Career Education, and that you are finding the materials interesting. I know that this is a busy time of the year, and I appreciate the time you're spending with these materials.

When you finish the reading, please be sure to complete the checksheet and return it to your son or daughter's teacher/instructor by November 16.

Thanks so much for your help.

Sincerely,

Kristine Koster Chaffee
APPENDIX E

POST-INTERVENTION MATERIALS
MEMORANDUM

TO: Ms. Nancy Mosura          Mrs. Thaalka Lehman
    Mrs. Pauline Kitchton      Ms. Marcy Samuel
    Mrs. Thelma Palmer         Mr. Bill Schnack
    Mrs. Juanita Francis       Mr. Mike Brickey

FROM: Kristine Koster Chaffee

DATE: December 1, 1977

SUBJECT: Career Education Dissertation Research

Please find attached, for your information, a copy of the final set of materials distributed to the parents and teachers participating in my study.

I am very pleased to report that over 90% of the initial materials were completed and returned to me. I really appreciate your cooperation and the assistance of the secretaries in your buildings. I am hoping to get an equally good response to these materials since I can use data only from parents and teachers who return both sets.

As soon as the data are analyzed, I will be happy to share the results with you. Again, my thanks for your help and support.

cc: S.G. Pleasnick
    B.E. Hust
    A.L. Johnson
December 1, 1977

Dear Teacher/Instructor,

This is the last phase of my study on Career Education. Thank you for your continued cooperation.

Please observe the following procedures:

1. Find your copy of the attitude scale enclosed. Please read the instructions and complete the form at your earliest convenience.

2. In a separate envelope, you will find another copy of the attitude scale with an explanatory letter for the participating parent from your classroom or work area. Please send this envelope home with your student. The parent is asked to complete his/her form and return it to you by December 7.

3. When you receive the completed parent form, please return it, together with the form you completed, to your school/workshop office. (Pre-school teachers, please keep the forms in your classrooms.)

4. I will pick up the completed forms on December 8 and 9.

5. If you have questions or problems, please call me at the Ohio Department of Education (466-4161).

Your participation has been greatly appreciated.

Sincerely,

Kristine Koster Chaffee

Enclosures
December 1, 1977

Dear Parent,

This is the last phase of my study on Career Education. Thank you for your continued cooperation.

Please observe the following procedures:
1. An attitude scale is enclosed. Please read the instructions and complete the form at your earliest convenience.
2. Send the completed form back to school or work with your son or daughter no later than Wednesday, December 7.
3. If you have problems or questions about the form, please call me at the Ohio Department of Education (466-4161).

Your participation has been greatly appreciated!

Sincerely,

Kristine Koster Chaffee

Enclosure
Career Education for
Moderately Mentally Retarded Persons

The purpose of this survey is to find out your opinion about career education for moderately mentally retarded persons. To make your task somewhat easier, we are proposing the following definitions:

Career Education is an approach to education that emphasizes vocational, social, and recreational skills. The basic goal of a career education program is to make work possible, meaningful, and satisfying for each individual. Through career education, students gain a better understanding of themselves and the world of work, and develop the skills and habits that will enable them to relate to other people and use their time productively.

Moderately mentally retarded persons are substantially below average in their intellectual functioning and adaptive behavior. They may demonstrate social and emotional immaturity, deficient communication skills, and limited skills in dealing with complex ideas. These individuals are frequently called trainable mentally retarded and are usually educated in special programs or classrooms.

Instructions: Read each item carefully, and circle the response at the right hand side of the page that most closely corresponds to your opinion. The meanings for the abbreviations at the right hand side of the page are presented below:

Strongly Agree Agree Neutral Disagree Strongly Disagree
SA A N D SD
1. Moderately mentally retarded persons need so much supervision that it is impractical to hire them.

2. Career education is just an educational fad that will soon be replaced by another.

3. It is unreasonable to assume that career education can help moderately retarded persons become contributing members of society.

4. Career education should be a mandatory part of every child's schooling.

5. There are probably better ways to educate moderately mentally retarded children than through career education.

6. Career education places too much pressure on children to grow up.

7. I would prefer that my children have some contact with moderately mentally retarded children.

8. When moderately mentally retarded persons are hired, it is more out of pity than because they can do the work.

9. I would not socialize with a moderately mentally retarded co-worker.

10. Career education is just another diversion from the basic academic training children need.

11. Career education for moderately mentally retarded persons sounds much more useful than most of the other educational innovations with which I am familiar.
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 12. | Moderately mentally retarded males should not work in jobs in which they would interact with women and girls. | SA A N D SD |
| 13. | It is unrealistic to think that moderately mentally retarded persons can perform other than menial tasks. | SA A N D SD |
| 14. | Moderately mentally retarded persons always require a great deal of supervision. | SA A N D SD |
| 15. | In several respects, moderately mentally retarded persons are a burden on society. | SA A N D SD |
| 16. | There are many jobs for which moderately mentally retarded persons are suited. | SA A N D SD |
| 17. | Most moderately mentally retarded children probably don't have the basic abilities necessary to succeed in a career education program. | SA A N D SD |
| 18. | In the long run, career education will make no real difference in a person's productivity. | SA A N D SD |
| 19. | I would prefer that moderately mentally retarded persons not hold jobs that could be filled by non-retarded persons. | SA A N D SD |
| 20. | Career education is another example of Federal interference in education. | SA A N D SD |
| 21. | Moderately mentally retarded persons have many more capabilities than are currently expected. | SA A N D SD |
| 22. | Moderately mentally retarded persons should not be trained for jobs in which they would interact with non-handicapped persons. | SA A N D SD |
23. Career education is the most practical way of educating all children.

24. Career education is probably not the best way to prepare moderately mentally retarded children for adult life.

25. Moderately mentally retarded persons would never be able to manage their own finances.

26. The benefits that will result from career education for moderately mentally retarded persons are probably not worth the resources invested in it.

27. I am comfortable in the presence of a moderately mentally retarded person.

28. Most moderately mentally retarded persons will probably never become self-sufficient.

29. An institution is the only place for a moderately mentally retarded person to live.

30. There are too many people out of work these days to worry about career education for moderately mentally retarded persons.
APPENDIX F

FOLLOW-UP CORRESPONDENCE
MEMORANDUM

TO: Ms. Nancy Mosure
   Mrs. Pauline Kitchton
   Mrs. Thelma Palmer
   Mrs. Juanita Francis

FROM: Kristine Koster Chaffee

DATE: January 9, 1978

SUBJECT: Career Education Dissertation Research

Enclosed please find a copy of my final correspondence with the parents and teachers who participated as subjects in my study.

May I take this opportunity to thank each of you for the cooperation and support that made the study possible. I appreciate your personal efforts to accommodate me, and the willingness of your respective office staffs in facilitating the research procedures.

I am enclosing a summary of the research findings and, as indicated in the letter to the participants, a complete copy of the dissertation will be available in your program library. If you have further questions, please feel free to contact me at the Ohio Department of Education (466-4164).

Again, my thanks and best personal regards for the New Year.

Enclosure

cc: S.G. Pleasnick
    B.E. Hust
    A.L. Johnson
January 9, 1978

Dear Teacher/Instructor,

My study on Career Education for Moderately Mentally Retarded Students is now complete, and I would like to express my appreciation to you for your participation. Your cooperation was a tremendous help to me.

Please find attached, for your information, a summary of the major findings of the study. If you wish more detailed information, a copy of the complete dissertation will be available in the FCPMR library in late March.

Again, many thanks for your help, and my best wishes for the new year.

Sincerely,

Kristine Koster Chaffee
January 9, 1978

Dear Parent,

My study on Career Education for Moderately Mentally Retarded Students is now complete, and I would like to express my appreciation to you for your participation. Your cooperation was a tremendous help to me.

Please find attached, for your information, a summary of the major findings of the study. If you wish more detailed information, a copy of the complete dissertation will be available in the FCPMR library in late March.

Again, many thanks for your help, and my best wishes for the new year.

Sincerely,

Kristine Koester Chaffee
MEMORANDUM

TO: Mrs. Branham, Transportation Supervisor
FROM: Kristina Koster Chaffee
DATE: January 9, 1978

Enclosed please find a set of follow-up letters for the busdrivers who assisted with my study.

I am also enclosing, for your information, a summary of the results of my study. If you or your staff would be interested in more detailed information, a copy of the complete dissertation will be available in the FCPMR library in late March.

Thanks for your cooperation.

cc: S.G. Pleasnick
MEMORANDUM

TO: FCPMR Busdrivers
FROM: Kristine Koster Chaffee
DATE: January 9, 1978

I have completed my correspondence with the parents and teachers of the Franklin County Program. I am pleased to report that 79% of the messages were successfully transmitted by the students from their teachers to their parents, and back to school again.

I appreciate your cooperation in helping the children remember to carry these messages on your bus. This message system was a vital link in my study. Thanks for your help!

cc: B. Branham
S.G. Pleasnick
Summary of Results

This study investigated attitudes toward career education for moderately mentally retarded students. The subjects were parents and teachers/instructors of children and adults enrolled in a county training program for the mentally retarded. Seventeen parents and 25 teachers participated in the experimental condition, while 19 parents and 27 teachers served as controls.

All subjects responded to equivalent pre- and post-test forms of a Likert-type attitude scale designed for this study. Additionally, the treatment group was exposed to a booklet of readings about career education for the handicapped.

The question addressed by this study, and the results that emerged, are summarized below.

1. Do parents and teachers/instructors of moderately mentally retarded students hold positive attitudes toward career education for these students?

Yes. All subjects expressed relatively favorable attitudes.

2. Do parents and teachers/instructors express similar attitudes toward career education for moderately mentally retarded students?

No significant differences were found between parent and teacher responses.

3. Can parent and teacher attitudes be changed through exposure to a set of materials pertaining to career education for the handicapped?

Post-test scores for the entire sample were significantly higher than pre-test scores. Since no significant difference was found between treatment and control groups, however, the change cannot be attributed to the intervention procedure. A Hawthorne effect is suggested.
4. Is there a relationship between the attitudes of teachers/instructors and the age of the student taught?

A significant positive correlation was found between the age of the student and the expressed attitude of the teacher/instructor. Teacher/instructor attitudes became more positive as student age increased.

5. Is there a relationship between the attitudes of parents and the age of their moderately mentally retarded child?

A significant negative correlation was found between the age of the child and the attitudes expressed by the parents. Parent attitudes became less positive as child age increased.

(Note: The total response rate for this study was 85% (93% for teachers, 79% for parents). This is an excellent return due in large part to the cooperation and support of parents, teachers, instructors, administrators, office staffs and busdrivers of the Franklin County Program for the Mentally Retarded. Their efforts are sincerely appreciated.)

Kristine Koster Chaffee
January 9, 1978
REFERENCES


Public Law 90-567: Vocational Education Amendments of 1968.


