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CAREER EDUCATION IN MICHIGAN COMMUNITY COLLEGES: A COMPARATIVE ANALYSIS OF PERCEPTIONS AMONG COLLEGE ADMINISTRATORS AND STATE OFFICIALS

BY
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ABSTRACT

CAREER EDUCATION IN MICHIGAN COMMUNITY COLLEGES: A COMPARATIVE ANALYSIS OF PERCEPTIONS AMONG COLLEGE ADMINISTRATORS AND STATE OFFICIALS

By

Mantha Stella Vlahos

The purpose of the exploratory study was to make a comparative analysis of the perceptions of selected state department officials and community college administrators in Michigan as those perceptions pertain to the basic nature of the career education concept in the community college setting. Meaning which each sample had for the concept was measured in terms of: (a) affective responses to the term, "career education," as revealed by a semantic differential inventory; and (b) cognitive responses to an a priori definition of critical elements of career education as defined by a panel of experts.

The samples were composed of 30 selected state officials of the Vocational Education and Career Development Service (VECDS) of the Michigan Department of Education and 30 selected administrators from six Michigan community colleges (CC). The in-person questionnaire survey method was utilized.

An additional community college was used to determine generalizability of the sample. Instrumentation included the semantic differential, Likert-type scales, and factor analysis. Each measuring technique was discussed briefly in terms of suitability advantages, and disadvantages. The measuring techniques were applied to coded data to determine results.

Major conclusions of the study included:

1. The affective descriptive meaning of the term, "career education," was virtually the same for both samples. VECDS personnel and CC administrators perceive career education as just right of center in potency, activity, and evaluative factors. The finding implies that State officials and community college administrators experience a similar effective reaction to the term, "career education."

2. Overall analysis of responses to an a priori definition of critical elements of career education as defined by a panel of experts indicate that the State officials and community college administrators do not differ in how they cognitively describe career education. The few specific differences which do exist were presented in the results.

3. A computer validity check determined that the questionnaire was able to discriminate on selected items and, thereby, implies that the two samples actually do not significantly differ in their respective description of career education concept.

4. The original factors of the questionnaire were contaminated. Items did not clearly differentiate the factors. Factor analysis for the VECDS indicated that underlying factors may be "self-development information," "previous experience," and "job preparation." The CC sample seems to indicate that "information gathering" and "sharing" may be the underlying factors affecting community college administrators. The factors should be pursued in more detail to determine if they are the real factors which determine response to definition of career education in programmatic element terms.

5. State officials correlate highly within on the infusion theme while community college administrators show high correlations within on the articulation theme. Self-assessment appears to correlate most often with other items for the VECDS.

6. The small size of the check sample (N = 5) prohibits generalization although the check sample tends to indicate that conclusions from findings may be generalized to the populations.

DEDICATED

To

My father, SPEROS, my mother, STELLA, and the memory of my grandparents who left their villages in Greece so that I could have this opportunity

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Mantha S. Vlahos

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Chapter I

THE PROBLEM

Introduction

Presently certain conditions which exist in the United States appear to indicate that the direction which the educational system has taken may not be appropriate (President's Community Crime Prevention Task Force Report, 1973). Figures from the U.S. Department of Health, Education and Welfare (1972) reveal that 850,000 elementary and secondary school students dropped out of school in 1971. Another 750,000 students in the general education program graduated from high school with no specific occupational skills and did not go on to college. In addition, 850,000 students entered college in 1967 but did not complete either a baccalaureate or an organized occupational program. The U.S. Office of Education interprets the addition of the above figures to mean that approximately 2.5 million people left the formal educational system without having received vocational training to prepare them with job skills.

Over fifty percent of the youth entering the ninth grade in large metropolitan areas drop out before completing high school. Most of them are unemployable. As a result, they

contribute to the rising rates of unemployment, crime, and welfare. (President's Community Crime Prevention Task Force Report, 1973)

By 1980, eighty-five percent of the jobs existing in the United States will require less education than a baccalaureate degree but more than a high school diploma. More emphasis will be placed on two-year occupational programs at the community college. (U.S. DHEW, 1973)

To change the current situation, the U.S. Office of Education (USOE) has proposed the concept of career education. Career education is a composite of career preparation (i.e., vocational-technical training) and career development (i.e., non-technical; career awareness, exploration, decision-making, and placement). (U.S. DHEW, 1973)

The present study emerged from the need for consensus between members of the Michigan Department of Education and administrators of Michigan's community colleges concerning the definition of the United States Office of Education's (U.S.O.E.) concept of career education. The U.S.O.E. and the Michigan Department of Education have placed major emphasis on implementation of the career education concept. To date, the effort has focused on kindergarten through twelfth grade districts with little regard to a career education model for post secondary institutions.

The strategy used by the U.S.O.E. in initially introducing the career education concept was merely to coin the term and not explicitly define it. The reasoning for the action was to promulgate definitions of the concept at the local level, to foster local involvement, and, hence, to gain faster acceptance of the concept. (Hoyt, et. al., 1972)

Now that increased support and funding of career education are pending, the investigator believes that congruity in definitions of career education must exist among the various groups implementing career education in the community colleges. Otherwise, efforts for statewide implementation of career education programs and an appropriate funding system may conflict and be counterproductive.

According to Marland (1971), Assistant Secretary of Health, Education, and Welfare, and the U.S. Office of Education, career education is defined as a concept which implies that such education will be part of the curriculum for all students; it will continue from first grade through senior high and beyond if the student desires; each student leaving school will possess the skills to give him a start in making his livelihood.

The Michigan Department of Education (1972) defined career education as follows: "educational activities from kindergarten through adult life which provide an individual with the attitudes and skills necessary to select and be successful in a career field. This includes the blending occupational preparation, career development, consumer education, and general education programs."

The central purpose of the career education concept is to maximize the future career options of youth and adults and assist them in finding the personal values which will enhance their potential in society. The career education program should provide students with a process for relating themselves and their education to real life needs. (Michigan Department of Education, 1973)

Purpose

The purpose of this study is to make a comparative analysis of the perceptions of selected state department officials and community college administrators in Michigan as those perceptions pertain to their basic concepts of the nature of career education in a community college setting. The concepts will include:

(a) affective responses to the term "career education" as revealed by a semantic differential inventory, and

(b) cognitive responses to an *a priori* definition of critical elements of career education as defined by a panel of experts.

Delimitations

Results of the present study can be generalized to the populations of administrators in Michigan community colleges and to members of the Michigan Department of Education professional staff of the Vocational Education and Career Development Service.

Although statistical generalizations of results may not be made beyond these populations in Michigan, the researcher believes that the methodology and results will prove useful throughout the United States in the nationwide attempt to define career education at the community college level.

Need for the Study

The concept of "career education" was mandated to all public schools by former U.S. Commissioner of Education, Sidney P. Marland, Jr. (1971b). In order to facilitate its adoption by local educational agencies, Marland did not explicitly define the concept.

Marland (1971a) first introduced career education as a new term to dispose of the term, vocational education. His rationale for that act was to acknowledge that vocational education does not serve enough students (Marland, 1971). Later, Marland (1972) proclaimed that career education was not synonymous with vocational education. It appears that if the last statement is what Marland really means, he should not have initially introduced the term, "career education," as a replacement for "vocational education."

Instead of assisting in the adoption process, this strategy has led to mass confusion with regard to the real meaning of career education. In fact, confusion arising from misunderstandings regarding the definition of the phrase, "career education," has resulted from inexact and sometimes inconsistent announcements from the U.S.O.E. regarding career education (Hoyt, et. al. 1972, p. iv). Even the four career education models described below which the U.S.O.E. is developing, each have a different rationale and different method (Moore, 1972, p. 5).

As Hoyt points out, there are as many definitions of career education as there are people defining it (Hoyt, et. al. 1972, p. 1). Unfortunately, lack of understanding can lead to initial rejection of the concept (Hoyt, et. al. 1972). (The current definitions and resultant confusion is discussed in further detail in Chapter 2)

In an effort to remedy the confusion, Marland (1971a) attempted to define career education by officially placing high priority on designing a workable system of career education. Three model career education programs were to have been developed. These are as follows:

1. School-based model -- a revision of curricula for kindergarten through junior college to focus on the concept of career development tying the school closely with local community, business, and industry. The principal objective was to guide the student either to a job or to further formal education. The critical elements in this model were coordination among grade levels and establishment of relationships outside the school with individuals who influence the student's career choice.

2. Employer-based model -- creation, development, operation, and support of educational experiences by industrial and commercial firms for the benefit of youth 13 to 20 years old who have dropped-out of formal education.

3. Home/Community-based model -- use of the home and community institutions to support the first two models and to reach individuals with limited formal schooling. (This model has since been referred to as two separate models: home-based and community-based).

To date, little has resulted in development of the U.S. Office of Education's models (Miller, September 19-22, 1972). No information concerning the employer-based and home/community-based models has been disseminated. The school-based model became a K-12 model with no consideration given to the post-secondary level. The model is currently being tested in grades K-12 of the Pontiac, Michigan Public Schools. These efforts have virtually done nothing to dispell the confusion concerning the meaning of career education.

In its zeal to follow Marland's mandate for career education, the State of Michigan's Department of Education has mandated career education in Michigan's public schools -- from kindergarten through the community college (Michigan Department of Education, 1972). The legal base from which the Michigan Department of Education (MDE) is functioning can be found in the Constitution of the State of Michigan (1963, p. 36).

According to Article VIII of Michigan's Constitution, the State Department of Education in Michigan is to have "powers and duties provided by law." Paramount among its powers is its duty to serve as the "general planning and coordinating body for all public education, including higher education," and to "advise the legislature as to the financial requirements in connection therewith." With this legal base, the Michigan Department of Education acts as the planning and coordinating body between the federal government and local educational agencies (Michigan School Code, P.A. 269, 1955).

The MDE has assumed the following roles:

(1) leadership role in the planning of educational programs;

(2) liaison role as transmitter of information between the U.S. Office of Education and local educational agencies; and

(3) financial role of determining who receives state funds based on MDE funding criteria. (Porter, 1971).

Since MDE has mandated career education programming for levels kindergarten through adult with support of the U.S. Office of Education and since funding criteria indicate priorities for educational agencies emphasizing the career education concept, there exists a need to determine how the career education concept should be defined in the community college setting.

In addition to the need for individual clarity of the concept, "career education," better communication must exist between the MDE and Michigan's community colleges concerning career education if planning efforts are to be successful. Public Act 364 (1973), which was recently signed into law, mandates a statewide assessment of career education programs. This is currently creating havoc because of the lack of a clear, concise, and mutual agreement as to what constitutes "career education" programs. The investigator believes that many community colleges conduct activities which the MDE would consider "career education" but which the college may be referring to by some other terminology. When the future funding policies depend on a survey such as is being currently conducted to fulfill the mandate of P.A. 364, explicit definition of the concept, "career education," becomes vital.

Therefore, the current study is needed to:

(1) determine how community college administrators and MDE personnel respectively describe career education in a community college setting;

(2) identify commonalities and differences; and

(3) offer recommendations to the Michigan Department of Education with regard to its communication approach with Michigan community college administrators in developing career education programs in a community college setting.

Basis for the Study

There exist philosophical, sociological, economic, and legal bases for career education. The following are brief discussions of these four areas.

Philosophical Base

Plato in The Laws (1970) wrote that training for manual skills is "mean and illiberal and is not worthy to be called education at all." In contrast to this viewpoint in 1524, Martin Luther (1908) advised the mayors and aldermen in Germany: "Boys should spend an hour or two a day in school, and the rest of the time work at home, learn some trade and do whatever is desired so that study and work may go together, while the children are young and can attend to both." Plato and Martin Luther exemplify the beginnings of two opposing views toward the role manual skills should command in education.

Jean Jacques Rousseau (1911), the 18th century philosopher, revolted against the intellectualism in the French education system. He published Emile in 1762 in which Emile spent two

days weekly as an apprentice with a master carpenter to learn the carpentry trade.

The Swiss educator, Johann Heinrich Pestalozzi, was directly influenced by Rousseau's book. Pestalozzi believed that a child learns by doing and so embodied many of Rousseau's ideas in a school. Books were used "to supplement experience and to supply those facts that are not readily accessible by direct investigation." (Pestalozzi, 1951)

The theories of Pestalozzi (1951) were brought to the United States in the early 1800's by Francis Joseph Neff who studied under Pestalozzi. In 1825 Neff (1966) went to New Harmony, Indiana, to teach in a school founded by Robert Owen. Owen (1969) believed in the Pestalozzi method and called for education "combining mechanical and agricultural with literary and scientific instruction . . . making every scholar a workman and every workman a scholar."

The idea of combining general and vocational education was embodied in the American land-grant colleges in the last half of the 1800's. In the beginning 1900's, the American educator, John Dewey (1916, p. 216), began to argue in favor of his belief that education was a tool to help the citizen combine culture and vocation. Dewey believed that "while there is no guarantee that an education which uses science and employs

the controlled processes of industry as a regular part of its equipment will succeed, there is every assurance that an educational practice which sets science and industry in opposition to its ideal of culture will fail."

According to Donahue (1959, p. 57), Dewey's theory implies that career training should not be a mere apprenticeship but rather "a laboratory of insights into the intellectual foundation, the general methods, and the humanistic values of work." Dewey (1904) says that vocational training should supply the intellectual method and material of good workmanship.

Dewey (1916, p. 231) further says that "the problem of the educator is to engage pupils in these activities in such ways that while manual skill and technical efficiency are gained and immediate satisfaction found in the work, together with preparation for later usefulness, these things shall be subordinated to 'education' - that is, to intellectual results and the forming of a socialized disposition."

Dewey (1930) believed that knowledge and choice are the constant concern of human existence. Knowledge and choice are stressed in career education programs with emphasis on self-awareness, career awareness and exploration, and career planning and decision-making. (Michigan Department of Education, 1972).

The total educational experience, as wide as life itself, ensures development of habits of instrumental thinking and social skills. Many educational activities, observed Dewey, can be found in the home and in the community.

He wrote that he did not expect genuine integration of knowledge to be achieved in his lifetime (Dewey died in 1952). He did believe that "a mind that is not too egotistically impatient can have faith that this unification will issue in its season." (Dewey, 1920, p. 26) Possibly, the time for this has arrived with the advent of career education.

Dewey (1915, p. 136) wrote that the function of work is to first sustain life and then "to provide a permanent home in which all the higher and more spiritual interests may center."

However, most American educators did not agree that vocations should be taught in school. Their position was a direct result of the English concept of aristocratic education. Education was designed to meet the needs of the "gentleman class." Educators were urged to take "culture" to the "laboring classes" to "elevate" them.

Classical Marxist philosophy (Marx, 1936) emphasized the opposite. Within this perspective, man essentially is distinguished

from animals because of his affinity for labor. Education, according to Marx, aims to cultivate the characteristic work power. The spirit is what emerges as workers fully realize the full range of their capacities. Marx believes that Man's labor is both the source and goal of his entire life. Marx contends that work is the basic and ultimate human activity. Even though many American educators still believe that a liberal arts education is the best preparation for any vocation, some prominent educators feel differently.

John W. Gardner (1969, p. 86) former Secretary of Health, Education, and Welfare, has written: "We live in a society which honors poor philosophy, because philosophy is an honorable calling and ignores good plumbing, because plumbing is a humble occupation. Under such practices, we will have neither good philosophy nor good plumbing. Neither our pipes nor our theories will hold water."

Sociological Base

Within the archeological perspective, man was first distinguished from animals by the invention of tools and language. The use of tools, or technology, has become a fundamental index of humanity. In the Western World, the

Judeo-Christian tradition teaches that work is a full human expression for which man is naturally oriented. Labor is a prime factor in the development of both societies and individuals. (Parker, 1971)

Protestantism established work at "the base and key of life." Martin Luther valued work as the religious path to salvation. Calvin believed it was the duty of everyone to seek out the profession which would bring him and society the greatest return. All men, even if rich, must work according to Calvin, because this is the "Will of God." Puritanism developed out of Calvinism and went one step further in valuing work as a means whereby "more benediction may fall upon the next needy person." All this led to 19th century belief in work for the sake of work. (Parker, 1971)

In simple societies the relationship between work and basic necessities (food, clothing, shelter) is direct for the individual and small groups. Only what is produced personally is consumed. Work does not exist in a nonliterate world. It begins with the division of labor and the specialization of functions and tasks in sedentary, agricultural communities. As society evolves, social production and ownership of property result in an indirect link between the individual productive effort and consumption of goods and services. (McLuhan, 1964)

Development of civilization corresponds to the diversity of types of employment and the expansion of goods and services which are regarded as necessities. Parker (1971, p. 33) goes a step further and says that, "Work is a basic condition of the existence and continuation of human life -- it is independent of any particular form of society."

The study of work and occupational life constitutes one of the important sub-areas within sociology. Richard Hall (1969) defines an occupation as the social role performed by the adult members of society that directly and or indirectly yield social and financial consequences and that constitutes the major focus in the life of an adult. Work is a social concept, and employment implies a social relationship.

According to Parker (1971), the meaning of work varies with the type of occupation, industry, and status. Difference in status, or social position in society is a difference in class, or economic position in society. A study conducted by Morse and Weiss (1955) indicates that to the American middle-class, work is something interesting to do which gives them a chance to contribute to society and to accomplish something. The working class defines work as synonymous with activity.

As Voltaire aptly states in his Candide:

> Work banishes those three great evils:
> boredom, vice, and poverty.

Cain (1971) and others claim that dependable workers are of greater value to society today than ever before. One of the principal arguments for vocational education is that it is a social necessity. In theory, and in fact, it represents an individual's turning point from economic dependency upon the social structure to his independent posture as a productive member of society. This transition can and does affect a person one or more times during his life. Vocational education is truly the bridge between man and his work.

Although the basic emphasis remains constant, the ways and means of achieving the educational goal do change. Effectiveness of vocational education in meeting the needs of people depends upon how clearly social change is detected and how wisely this change is served. The nature of the contemporary social setting has been, and must continue to be, the motivation for change in vocational education. Therefore, today, interest has developed a new thrust called "Career Education" - a total curriculum concept encompassing both vocational and general education.

Economic Base

Currently eighty-five percent of the students in elementary and high school do not go on to receive a baccalaureate degree (U.S.O.E. 1971). Unfortunately, many of these students also do not

receive salable entry-level job skills while they are still in the public school system. Offering fewer programs, shoving more students into each classroom, or throwing them out in the street would only decrease the opportunities youth have to properly develop their interests and abilities in a manner acceptable to society.

In Pontiac, Michigan, and many other metropolitan cities, the drop out rate is over 29.73 percent. (Michigan Department of Education, 1972) This school dropout rate, combined with the lack of employability skills, has led to an increase in both the unemployment rate and the crime rate. Eighty percent of the inmates in correctional institutions in the United States are school dropouts (President's Community Crime Prevention Task Force Report, 1973).

In addition to the tremendous human costs incurred when youth and adults are unprepared for self-support, large monetary costs are incurred from the resultant situation. According to the U.S. Office of Education's National Center for Educational Statistics (1971) in the 1970-71 school year 850,000 youth dropped out of elementary and secondary schools. Assuming that, on the average, students dropped out at the end of the tenth grade at the cost of approximately $8,000 per child, which it takes to put a child through eleven years of school, this constitutes an outlay of $7 billion.

In addition, during the 1971-72 school year, 750,000 students graduated from high school in general education. Most of these students did not have the skills needed to be successful in the job market. At the cost of $12,000 per pupil necessary to put each through high school, this constitutes a cost of $9 billion. (U.S.O.E., 1971).

Another 850,000 students had entered college but dropped out during the 1971-72 school year. Assuming that these students left at the end of their first year, for a conservative estimate, this implies a cost of $12 billion. (U.S.O.E. 1972).

Looking at elementary, secondary and post-secondary schools all together, approximately 2.5 million young people left school in FY 72 without the necessary skills to get and keep a job. This represents an expenditure of approximately $28 billion. The entire cost of education in FY 1972 was $85 billion, so it is evident that these costs totaled one-third of the entire budget. (U.S.O.E., 1972). Considering that these costs are for one year only, one can readily see how these kinds of costs can mount over a period of time and lead to an unfortunate economic situation.

According to the Manpower Report of the President (1972), for 1971 the average unemployment rate was 5.6 percent. Youth unemployment for those ages 16 through 24 was 12.7 - more than twice that of the national average. Similarly, the unemployment rate for Blacks in 1971 was 9.9 percent and 10.9 percent for

Black females. These figures indicate that special emphasis must be placed on educating youth and minorities so that they can function in society with full human dignity.

The soaring unemployment figures should be greatly reduced when students, young and old alike, are trained with salable, job-entry level skills. Thus career education could possibly function as preventive medicine in helping to cure the disease of unemployment which currently plagues our society. Unfortunately, at the present time, according to figures in the Congressional Quarterly's Congress and the Nation (1969), the federal government spends almost four dollars for retraining unemployed workers for every dollar it spends on preventive programs that prepare young people for employment at the beginning of their careers.

There are many economic benefits which can be derived from education. Among the most easily identified benefit is increased productivity of the labor force. Along with this comes an increase in physical capital. Money for education is returned to the economy in the purchase of materials, facility construction, goods, and services. Changes in the distribution of earned income and increased economic mobility are two more major economic benefits which are brought about by education. The cost-benefit ratio becomes even more desirable when emphasis is placed on developing employability skills in students. (Michie, 1972)

Earning power among students trained in vocational education skills is more than that of people who have not received this preparation. In a cost-effectiveness study of vocational education conducted by Kaufman, et. al. (1969) findings indicate that during the first six years after graduation, vocational-technical graduates earned more money, performed better, and were employed longer than graduates with non-vocational or academic majors. Obviously, this increased earning power stimulates and returns tax dollars to the national economy.

Various studies are currently being conducted to determine the actual dollar returns. A study conducted by the Arizona State Department of Vocational Education (1971) indicates that within three years, the federal government received $2 back in taxes from vocational graduates for every $1 it spent on their education. In addition, the State of Arizona, at the end of three years, received $193,602 back in taxes. This amount constituted over a quarter (26.5%) of the total annual expenditure for vocational education spent by Arizona.

The current social and economic ills of society demand that the educational system, as it exists, change to meet the changes society is experiencing. Over a million students are dropping out annually . . . . turned off by the educational system and society. Millions more are psychological dropouts who apathetically go through the motions of attending classes. As a result, the

unemployment and crime rates have soared.....and humanity has suffered. (President's Community Crime Prevention Task Force Report, 1973)

Legal Base

At the present there is no real legal base for career education in Michigan. Michigan's Public Act 364, which was signed into law by Governor Milliken, is the first step that the Michigan Legislature took toward the sanctioning of career education. P.A. 364 states that a statewide assessment of the status of career development programs must be completed and submitted to the Legislature.

On March 21, 1973, House Bill No. 4422 was introduced as the "Career Education Act of 1973." The bill states that guidelines for a comprehensive career education program will be established by January 1, 1974. Career education is defined in H.B. 4422 as "A total educational program which maximizes the future career options of youth and adults by providing adequate career development and preparation." Although the word, "adults" appears in the definition of career education, H.B. 4422 does not address itself to post secondary education.

Research Questions

Explanations of the purposes of the study, need and basis for the career education concept appear to lead to the following set of research questions.

1. What is the description of career education in terms of affective meaning and program elements in the community college according to the samples studied?

2. Is there commonality in the themes used to describe career education?

3. What are the differences within and between the groups studied?

4. What should be done to foster awareness or consensus of definition of the career education concept?

Chapter II

REVIEW OF THE LITERATURE

Confusion in Definition

Career education is referred to in the literature as a concept (Marland, 197 ; Goldhammer & Taylor, 1972; Swanson, 1971; Hoyt, et.al., 1972; Klinkhammer, 1973). Rogers and Shoemaker (1971) define a concept as a dimension expressed in its most basic terms. The meaning which an individual will have for a concept is determined by all his past experience (Osgood and Sebeok, 1965). Since the total stored experiences of individuals are unattainable for analysis, Osgood and Sebeok (1965) substantiate that meaning may be defined by a relatively limited amount of elicited language.

Generally, a definition is a substitution of language in order to achieve clarity (Benjamin, 1970). A "reported" definition depends on people's verbal behaviors. The present study elicits reported definitions of "career education."

Methods of definition include genus, comprehension, or negation (Benjamin, 1970). Definition by genus refers the term being defined to a class, kind, or group which is marked by

common characteristics. The comprehension method of definition relies on the intellect. The individual is supposed to grasp the knowledge according to his capacity for understanding. Definition by negation defines a term by telling all the things it is not. The person receiving the definition must then infer from the universe what it is. Many attempts at defining the career education concept have focused on the negation method (Michie, 1972; Pierce, 1972). The problem with this method has been that the negation has not been carried far enough so that it becomes clear what career education is.

Rules for producing a successful definition are offered by Benjamin (1970). He says that the language which is used should have high comprehension probability. The need for a new term should be demonstrated, and familiar language should be used in introducing the new term. The language should be determined by the audience for which it is intended.

Furthermore, entire designators of the concept should be replaced rather than merely replacing individual words. Definition and description of the term should not appear in the same sentence, since this will result in confusion. One should determine whether the intent of the term is definitive or descriptive.

In the case of the "career education," Marland proposed it at the 1971 Convention of the National Association of School Principals as a replacement for the term, "vocational education." Marland believed the change in terminology would be a first step in disposing the existent academic versus vocational dichotomy. (Marland, January 23, 1971)

Later in 1971, Marland (May 4, 1971) claimed that his motivation in using the term, "career education," in place of "vocational education" was to acknowledge that the vocational education prevalent at that time was good but did not serve enough students.

Marland (1971) says that career education to him means a concept which says three things:

(1) career education will be part of the curriculum for all students;

(2) it will continue throughout life if the student desires; and

(3) each student will possess entry-level skills when he leaves school even if it's before graduation.

"All education is career education, or should be," says Marland (1971, p.3). Career education would bridge school and work by stressing reality in the classroom (Marland, 1971, p. 8).

Marland (March, 1973, p. 3) has "conscientiously avoided" a precise definition of career education. He says that academicians who have looked down at career education as a reflex action by the federal government to alleviate the high unemployment situation are wrong. Marland also condemns vocational educators who define career education synonymously with vocational education.

The present investigator feels that Marland spends most of his energy declaring what career education is not and actually has done very little in comparison to assist in adding clarity to the definition. His strategy may have been good at the initial beginning of the career education concept, but strategies must change over time to facilitate adoption of the concept. The present investigator strongly believes that when implementation of the concept is being forced upon schools and colleges (H.B. 4422), the time has come to establish a precise definition of career education.

Marland's explanation of career education is "hardly a definition." To gain credibility and support for career education programs from local, state, and federal agencies, educators need to be explicit in definitions and not use professional jargon to obscure the true situation. (Moore, 1972)

Since Marland's initial introduction of the concept, several persons have attempted to define career education using the comprehension method of definition. For example, Evans defines career education as "the total effort of the community to develop a personally satisfying succession of opportunities for service through work, paid or unpaid, extending throughout life (Hoyt, et. al., 1972, p. 1). This definition emphasizes career and the ethics of work.

Hoyt has a similar definition of career education with more emphasis on human values. "To Hoyt, career education is defined as the total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work-oriented society, to integrate these values into their personal value systems, and to implement these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual." (Hoyt, et. al., 1972, p. 1)

The definitions of career education given by Hoyt and Evans (Hoyt, et. al., 1972, p. 66) both emphasize the values of a work-oriented society and the importance of the educational system in perpetuating them. The definitions are based on the following assumptions:

1. Productivity of any society depends directly on the society's commitment to the work ethic, given equal resources and ingenuity.

2. The Protestant work ethic is being eroded and is no longer a viable concept for many people in American society.

3. None of the great civilizations in history continued to prosper once they abandoned their commitment to work.

4. Career education's basic goal is to restore the work ethic so it reflects new social and economic realities.

Components of career education according to Hoyt, et. al., (1972) are as follows:

1. Emphasis by all teachers in all courses at all levels on the career implications of the substantive content being taught.

2. Vocational skill training to avail students the competencies necessary to successfully enter or reenter the work world.

3. Comprehensive career development program involving school and non-school personnel.

4. Cooperation and positive involvement of private and public employers and labor organizations.

5. Recognition and capitalization of the interrelationships among the home, family, community, and occupational society.

Hoyt, et. al., (1972, p. 10) suggests that there are three phases in the career education process for every person:

1. awareness phase;
2. exploring and personal decision making phase; and
3. implementing work values phase.

The process is repeated whenever an individual selects or changes his occupation.

A slightly different view is expressed by Evans and McClosky. They say that career education provides a means for demonstrating the social relevance of what is learned in school by showing the relationships between that and careers. The individual can see that the material taught and competencies developed are relevant to his particular career goals. Career education, then, offers an effective vehicle to facilitate adjustment to work changes. (Evans and McClosky, October 1972).

Another description of career education as an "emerging construct" offered by Pratzner (1972). He initially defines career education as "education:

(1) consisting of general and specialized training;

(2) to help individuals achieve self-fulfillment through their work roles; and

(3) to help society achieve a balanced supply and demand for professional and non-professional manpower."

Broadly, Pratzner believes career education is an attempt at humanization of education -- especially vocational education.

In his summary, Pratzner (1972, p. 181) claims he defined career education as: (1) general and specific training, (2) greater program and curriculum alternatives, (3) more individualized strategies, (4) focus on the affective domain in content and methods, and (5) continual adjustment from kindergarten beyond the twelfth grade. Apparently Pratzner changed part of his definition of career education from the first portion of his article to his summary. Such a change can lead to confusion among readers and leads one to place less confidence in Pratzner's knowledge of the career education concept.

Pratzner (1972, p. 177) says that work adjustment of the individual and a balanced supply and demand of skilled manpower are the goals of career education.

Goldhammer (1972) contends that education should prepare people for "life careers," or life roles. He describes the life roles as the following:

1. Economic Man - produces goods or renders services.
2. Family Man - participates in the family unit.
3. Social Man - participates in social and political activities.
4. Avocational Man - participates in recreational activities.
5. Religious Man - participates in aesthetic, moral, and religious activities.

Every person participates in each of the life roles in varying degrees throughout his lifetime. In the present American society, the economic life role appears to be most important. All the other roles depend on satisfactory fulfillment of the economic role.

Miller (October, 1972) states that if career education is defined in such broad terms as preparation of a member of the society for a career as (1) economic man, (2) family man, (3) sociopolitical man, (4) leisure man, and (5) aesthetic man, there is no wonder that people should find it attractive. He implies that mere preparation for life roles (Goldhammer's thesis) is insufficient definition to demonstrate any difference between career education and any other ideal educational system. He believes that the real difference is pointed out by the U.S. Office of Education. U.S.O.E. stresses <u>fusion</u> of academic, vocational, and technical areas for <u>all</u> students. Career education, then, according to Miller, is a comprehensive educational program involving the entire school program so that career development concepts, information, and experiences are infused into the existing curricula.

"Career education" is a label for an evolving concept which is in the process of being defined to accommodate interests within and among various groups (Swanson, 1971). The effort to

find an acceptable definition according to Swanson merely results in arriving at a "tolerable level of generality."

Swanson (1971) deliberately does not attempt to define career education. Instead, he describes the various approaches which have been used to explicate the concept. The approaches include description of the following:

a. A philosophical commitment of the educational system to the values of a work-oriented society;

b. The essential components required for the functioning of a career education program;

c. The utilization of career education as an educational delivery system;

d. The educational levels and the various educational objectives upon which they center from kindergarten throughout adult life; and

e. The outcomes of career education.

Swanson (1971) is the only author whom the present investigator was able to find who discussed the overall approaches which have been taken in describing career education. He concludes that no single approach to the definition or description of career education is complete or adequate. He contends that all the approaches currently in use be utilized to define career education more precisely.

Swanson (1971) to date is the only writer in the career education realm who even mentions anything regarding the semantic meaning of the concept. "Career" in the concept, "career education," according to him is "grammatically and conceptually" an adjective. This implies, he says, that career education is a special kind of education concentrating on the values of work. The meaning of career education, therefore, cannot be synonymous with that of education.

From the above examples, one can readily see that the number of definitions of career education is as great as the number of educational philosophers (Burkett, March 1973, p. 73; Hoyt, et. al., 1972, p. 1). No consensus on the definition of career education exists nationally (Hoyt, March, 1973, p. 23).

Goldhammer (1972, p. 5) claims that "the most accurate and honest statement to be made at this time is that career education remains to be precisely defined." He asserts that there is no universally accepted definition of career education and that the strategy of the U.S. Office of Education has been to leave the definition open to as much dialogue and interaction as possible (Goldhammer, 1972, p. 6).

Even the four USOE models of career education each have a different rationale for career education and how it should be done. Yet, each is used as an example of career education when attempts are made to define it. This leads to confusion concerning what career education <u>really</u> is. (Moore, 1972, p. 5).

"At present career education is little more than a statistical caricature. It is an idea without a well-defined principle. It is a theory that is yet to be proven." (Moore, 1972, p. 4)

Shimberg (1972, p. 47) says that there is lack of a precise definition of the term, "career education," and few specifics concerning how the concept will be implemented. Career education, therefore, has not appeared as a threat and, hence, has evoked general agreement that it is a good thing.

Klinkhamer (1973, p. 124) refers to career education as a puzzle. He says that one advantage is that educators have the opportunity to conceptualize it before its conceptualization is completed. He also hints at the possibility that its conceptualization may never be completed. Increased interest in career education has resulted in a continual adding of more pieces to the puzzle.

The utter confusion surrounding the concept of career education is discussed by Moore (1972). He demonstrates how career education is "polluted" by terms, such as "vocational education," "skill training," and "technical education." He explains that many look at career education as vocational-technical education with a social dimension incorporating a general education, guidance, and counseling component.

Goldhammer (1972) believes that a careers curriculum is not a panacea. He suggests that it has potential. It re-directs the mission of education from purely integrative dimensions toward applicative ones.

School administrators should lead the effort to expand career education according to Venn (1972). He contends that career education "promises too much and produces too little." Career education is not a program, course, or method, according to Venn (March, 1973, p. 12). Rather, it is a concept which expands options to youth and those who are out of school. Venn believes that in its total application career education is a "truly new" concept.

Some persons, such as Hoyt, Heilman, and Goldhammer disagree with Venn. There is nothing new so far in the concept of career education (Hoyt, et. al., 1972, p. iv), although some new applications of existing concepts are discussed. "Career

education, a concept long latent in American education, has emerged as a high national priority within the last three years." (Heilman and Goldhammer, 1972, p. 1)

McCarty (1972) believes career education is a method of channeling minorities into blue collar jobs. He feels that support from teacher and labor unions is necessary in order that the hard sell approach which has been taken be successful in implementing career education.

Shimberg (1972) supports the career education concept but questions the tactics being used for implementation. He feels that, in general, career education is not threatening. He says that the reason it is not threatening is that there is no precise definition of the term and few specifics on implementation of it. Therefore, educators, he believes, think it is a good thing.

Summary

In summary, review of the literature points out the confusion which currently appears to exist concerning the definition of career education. The concept, career education, was not properly introduced by Marland, its originator. The investigator believes the concept has not yet been properly defined according to the tenets of language theory.

Because of the apparent ambiguities, many persons have attempted to define "career education". There has been no systematic attempt to define the concept to the investigator's knowledge. As a result, there appear to be as many definitions of career education as there are people investigating it.

The investigator is amazed that educators seem to be plunging into the operational phase of the career education concept without an overall consensus of what the concept means. Several educational "movements" which appear to have been implemented hastily also. These movements did not achieve the success their supporters believed they deserved. As a result, the movements relatively died out. Some of these movements are discussed below.

Antecedents of Career Education

Although Hoyt, Evans, and the others (1972, p. 54) include a section entitled "Precursors of Career Education" in their book, they refer only to isolated, single projects which were in operation recently. They do not mention any of the full-scale movements in the history of American education which the current

investigator believes are some of the real antecedents of the career education concept. The following are some of the antecedents of career education with brief explanations of each.

Industrial Arts

Industrial arts programs traditionally have been based on the teaching of manipulative skills -- implementation of the "learning by doing" concept. The knowledge learned emphasizes exploration of skills necessary for performance of tool operations. After industrial arts programs had been in operation for a number of years, related knowledge was added to them. Knowledge which helped students develop a broader understanding of the work which they performed included such things as how metals were made, furniture styles, etc. (Giachino and Gallington, 1954).

According to Krug, (1960) there is no valid line of separation between the visual fine arts and the industrial arts. Nevertheless, separate programs of instruction exist for the two. Industrial arts often is equated with vocational education but really is part of the general, or liberal, education curriculum.

In 1946 a committee of the industrial arts division of the American Vocational Association wrote the following:

> Industrial arts courses are part of general education and do not have distinctly bread-and-butter justification. They are assumed to generate sympathetic interest in the whole of industry, as compared or contrasted with agriculture, homemaking, commerce, and certain technical professions. Instructors in this field aim at broad, rather unspecialized, and often remote values. They consider their subjects and their associations with pupils to be largely informational and inspirational."

Industrial arts programs consist of prevocational, exploratory courses in technical and industrial (T & I) education. They encompass such things as woodworking, metals, electricity, hydraulics, automotive, and graphic arts. Students initially explore the general areas and, then, study some in depth.

The investigator believes that the intentions of industrial arts programs are very similar to the objectives of career education programs (i.e., exploration in general career areas leading to greater specialization; study of the broader, non-technical areas of general education as they relate to careers (career development). Career education is currently attempting to do for all vocational and general education areas what industrial arts attempted for T & I programs.

Vocational Guidance

Guidance helps the individual understand himself so that he is able to make decisions on the basis of his understanding. Vocational guidance develops the individual's understanding of himself and his abilities in relation to the occupational world. It includes both individual counseling and group instruction in occupations. Vocational guidance may occur at any level in the educational system but has primarily been focused in the junior high and high school years. (Krug, 1960)

Because vocational guidance has relied heavily on vocational aptitude and interest tests, it has received much criticism. The criticism is based on the fact that vocational guidance counselors often regard these tests as absolute verdicts. These tests are then sometimes used to manipulate the individual into an area for which he is not especially suited. In the ideal situation, vocational tests are not used in isolation. Instead, they are used in conjunction with numerous other indicators to aid the individual in making career choices. (Ibid., 1960)

Vocational guidance is an integral part of the career development component of career education. An attempt is being made to return to the essence of vocational guidance as a method of guiding students through vocational experiences. (Ibid., 1960).

Life Adjustment Education

In the middle 1940's, the term, "life adjustment education," was used to denote a new impetus in the educational field. The life adjustment movement originated from the Prosser Resolution (1945) which was presented at a conference on the future of vocational education. This resolution, presented in Washington in June of 1945, states the following:

> It is the belief of this conference that, with the aid of this report in final form, the vocational school of a community will be able better to prepare twenty percent of its youth of secondary school age for entrance upon desirable skilled occupations; and that the high school will continue to prepare twenty percent of its students for entrance to college. We do not believe that the remaining 60 per cent of our youth of secondary school age will receive the life adjustment training they need and to which they are entitled as American citizens -- unless and until the administrators of public schools with the assistance of the vocational education leaders formulate a similar program for this group.
>
> We therefore request the U.S. Commissioner of Education and the Assistant Commissioner for Vocational Education to call at some early date a conference or a series of regional conferences between an equal number of representatives of general and of vocational education -- to consider this problem and to take such initial steps as may be found advisable for its solution.

The term, "life adjustment education," caught on quickly and spread throughout the country in both educational and popular media. In response to a request in the resolution, the U.S. Office of Education conducted a series of regional

conferences for educators throughout the country. The focus of these conferences was not to initiate a new curriculum, but rather to renew the effort to relate secondary education to the problems and concerns of everyday life. Initially, the effort focused on the 60 percent of high school youth who did not go to college.

When life adjustment education was criticized for planning a separate curriculum for one group of the high school population, the non-college bound youth, it shifted emphasis to encompass all youth. This move was criticized as a move to dilute the entire high school program. As a result, no follow-up programs were established to develop the concept further. The absence of follow-up programs and worn out enthusiasm brought about the gradual disintegration of the life adjustment education movement.

By the middle of the late 1950's, the term, "life adjustment education," disappeared as a favored term. However, as a result of life adjustment education, teachers and administrators began to realize that students differ in the extent to which they can study and learn traditional academic materials. As Krug, (1960) contends, "what is important is to be sure that we deal with individual differences, not with differences of students thrown arbitrarily into groups."

The present investigator believes that the life adjustment education movement was quite similar to the career education movement. Life adjustment education and career education each were first introduced at a vocational education conference and later supported by U.S.O.E. They were both conceived as methods for reaching the sixty percent of youth who did not enter college. Both concepts asked for union of vocational education and general education into one kind of education. The focus of both life adjustment education and career education was to relate curriculum to the concerns of everyday life rather than to initiate an entirely new curriculum.

Educators who believed in life adjustment education started to look at behavioral theories which would assist them in understanding the individual students. One of the concepts which they attempted to incorporate was the "developmental tasks" approach of Havighurst (1950). The approach is explained in the following section.

Developmental Tasks

Another antecedent of the career education concept is the developmental tasks approach to education.

Havighurst (1950, p. 2) was the first person to coin the term, "developmental task." He said that because so much misunderstanding results from using the term, "needs," he was "determined to try out the term 'Developmental Task' instead. A developmental task is a task which arises at or about a certain period in the life of an individual, success achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by society and difficulty with later tasks" (Ibid., p. 6).

Developmental tasks may be described for any growth level from infancy throughout adult life. The level designations are arbitrary and seem to correspond primarily to common sense notions rather than to any scientific base (Ibid., p. 6).

The developmental tasks may be applied to situations within the educational setting. At different times during his years in school, the student is "ready" for different tasks. The tasks progress in difficulty over the years.

Havighurst (Ibid., p. 8) does not contend that developmental tasks should constitute the entire basis for a school program. He does suggest that developmental tasks are important in

discovering and stating the purposes of education in the schools and in determining the timing of educational efforts. He contends that developmental tasks offer criteria for evaluation of educational programs.

Super (1957) utilized Havighurst's suggestions and established vocational developmental tasks and opportunities by grade level. Career education programs include the developmental tasks under the guise of "performance objectives."

General Education

Since general education is difficult to define, Johnson (1952) describes it in terms of approaches. The "great books" approach assumes that students grasp knowledge from the past which they can apply to present and future problems. The liberal arts approach assumes that sampling from many different fields gives students insight into current problems. Similarly, surveying fields of knowledge assumes that an understanding of the present will evolve from the study. The functional approach assumes that identification of life needs of the students and society allow a direct, individual approach. The infusion approach maintains that outcomes, such as citizenship, can be taught as the opportunity arises.

Henry(1956) defines general education as that required of all students.

Henry's definition is very broad and could conceivably include all education. The basic assumption is that general education can be legitimately defined in terms of common classes or courses.

The career education component of career development embraces general education. Career development focuses on the non-technical skills necessary to obtain and maintain a job. The topic will be covered in more depth in the subsection entitled "Career Development."

Summary

Upon examination, one can see that all of the antecedents listed above contain elements which can be found in career education programs. They are not all inclusive but do represent some of the major educational movements which preceded career education. Similarly, they are not mutually exclusive. All of them contain some elements which are contained in the others.

Of the antecedents listed above, each in turn was considered to be the answer to the ills of the educational system. Each, in turn, experienced a rise and fall. It appears to the investigator that in many of the situations the administrators of the educational programs were responsible for the decline.

Administrators were too quick to label the program concepts as panaceas. Because of their anxiety to have all their problems solved, administrators used the programs as dumping grounds for the "problem students." Since the "dumping" was done so quickly and since the programs had not had sufficient time to be fully implemented, it is no wonder that the programs failed.

Proponents of career education programs may be wise to heed the fate of many of its antecedent programs. If the same pattern of "quicky" implementation repeats itself and if the attitude of administrators of programs is not officially addressed and adequately, it seems that career education programs will not have much of a chance to be successful.

Components of Career Education

Career preparation and career development from the two major components of career education (Michigan Department of Education, 1973a). Career preparation is defined as "a comprehensive occupational program to prepare students enrolled therein for employment (Michigan Department of Education, 1973b)." The comprehensive occupational program implies a minimum of fifteen USOE Occupational Instructional Codes in a minimum of three occupational fields (U.S. DHEW and U.S. Department of Labor, 1969).

Career preparation is the skill training portion of career education. It is vocational education with a broadened scope which includes more flexibility in programming and greater options for students. (Koble, Jr. and Coker, 1973).

Vocational education has become the vehicle for delivering career education apparently because of Marland's original statement linking vocational and career education. Funds to operate career education programs are being taken only from vocational education monies. Therefore, administrators of vocational programs are administering career education programs.

Career education meshes the vocational, or career, preparation component with career development. Career development is defined as those systematic activities to develop: self-awareness and assessment; career awareness and exploration; career planning and decision making; and placement. (Michigan Department of Education, 1973b).

Although career development has been described according to various classification schemes (Hilton, 1962; Osipow, 1968), the general approaches are similar (Herr, 1972; p. 69). The most common approach has been labeled as "trait and factor." Personality traits are compared with social factors, such as social status and parental influences, in an attempt to predict such things as occupational choice, job success, and job satisfaction.

Another approach to career development is based on Keynesian economic theory (Ibid., 1972, p. 70). An individual selects a career which will maximize gains and minimize losses of anything which the individual values. The economic approach assumes positive decision-making. This assumption is not always appropriate, because, as Herr points out, sometimes decisions are made between the lesser of two evils rather than toward a positive good.

A third approach which has been taken toward career development is based on sociological theory (Ibid., 1972, p. 70). Career choice is determined by class in the social structure in which an individual finds himself. The lower and more restricted the social class, the fewer career alternatives available. Social conditions, such as poverty, have impact on the careers which an individual has the opportunity to enter.

The information processing model is described by Herr (1972, p. 71) as a fourth approach to career development. In the information processing approach, the individual is overwhelmed by the amount of career information available. The information overload which is created causes anxiety in the individual. To reduce the anxiety, the individual makes a career choice prematurely. This approach is best described by the theory of cognitive dissonance (Festinger, 1957).

A fifth approach to career development is based on personality theory. Personality differences in individuals are thought to create certain needs in those individuals. Career choices are based on satisfying or reducing those needs. (Holland, 1959)

Roe (1956) uses the personality theory approach to emphasize the impact which early childhood experiences and parental attitudes have on occupational choice. Persons from accepting homes tend to be interested in all sorts of occupations, while people from rejecting homes tend towards "non-people" occupations (technology, science, outdoor types).

The final approach which is discussed by Herr (1972, p. 71) is one which emphasizes development of self concept. The approach assumes that behavior depends on one's self concept. As the individual becomes aware of himself, he learns how to assess his own interests, abilities, and attitudes. Self-awareness determines his interaction with his environment and his ultimate career choices. Job satisfaction depends on congruence between the individual's self-concept and his job. (Ginzberg, 1951; Super, 1957)

In summary, Herr (1972, p. 73) says that his review of approaches to career development indicates a shift in emphasis. The shift is from the Parsonian approach which matches people

with jobs to a model focusing on self development. The individual's development of interests, abilities, and attitudes leads to career planning and decision-making processes which extend throughout a lifetime.

Summary

Career education, in summary has two primary components: career preparation and career development. Career preparation refers to the vocational-technical skill training, while career development implies the non-technical aspects. The non-technical aspects include such things as self-awareness, career awareness, career exploration, career decision-making, guidance, and placement. The two components of career education are meshed together to compose one total career education.

The Community College Role

Marland suspects that community colleges are probably the most responsive instruments in terms of time and space for adult education. Because of a lack of academic tradition and rigid structuring, community colleges are reaching a wider variety of people with a greater variety of offerings than are secondary school or four year institutions. (Marland, 1972, p. 48).

Post secondary programs provide for two functions of career education according to Goldhammer (January, 1972). The one function is providing opportunities to students so they may make initial preparations for the career of their choice. The other one is offering retraining for people already in a job.

Moore (1970) agrees with Goldhammer that community colleges particularly have the type of emphasis and configuration necessary for career education programming. Unfortunately, at the present time, most community colleges are structured so that academic and vocational programs are in competition (Brameld, 1967, p. 23).

Because competition exists between academic and vocational programs, the community colleges must change says Hoyt (August, 1970). The community college has the potential to combat any prejudice against vocational education. Hoyt believes that vocational education programs should be offered with an open door policy and that job placement of students should be operated on a statewide rather than a local basis. (Hoyt, 1970, p. 37-38).

Summary

In summary, community colleges appear to be good settings for career education programs. Students can attend the community

college at any time during their adult lives. The community college is geared to both training, retraining, and upgrading of job skills.

Chapter III

METHODOLOGY

Introduction

The present study is descriptive and exploratory in nature. The basis of the investigation is a comparative analysis of the Michigan Department of Education's Vocational Education and Career Development Service professional personnel and Michigan's community college administrators in terms of their perceptions of the career education concept in the community college setting. The purpose of the present chapter is to explain the methodology utilized in the study.

Samples

Based on the purpose of the study and the fact that the community colleges were identified in Chapter II as an ideal setting for career education programs, Michigan's community colleges were selected as one population for the study. The investigator chose to survey community college administrators since the administrators are the people who ultimately determine what programs will be offered by the college.

A sample of thirty community college (CC) administrators was selected. Justification for selection of an N = 30 is that Isaac and Michael (1972) assert that exploratory research normally has a sample size from 10 to 30. Five was chosen as the number of

community college administrators to be interviewed per college since all Michigan colleges have at least five administrators. Selecting a number greater than five would have resulted in interviewing some "non-decision makers." The state department sample of thirty is a saturation sample of the Vocational Education and Career Development Service (VECDS). This particular Service of the Michigan Department of Education was selected since primarily leadership, and hence, decision-making for the development of career education programs within the State of Michigan had been vested there (Michigan Department of Education, 1973).

Therefore, the samples were composed of:

a. The five administrators identified by the president of the community college as the primary decision-makers of the college. Five people were identified at six Michigan community colleges. The colleges were selected by stratified random sampling methods from the population of twenty-nine Michigan community colleges (see Appendix III for stratifications). The colleges selected include the following: Genesee Community College, Flint; Jackson Community College, Jackson; Kellogg Community College, Battle Creek; Mid-Michigan Community College, Harrison; Montcalm Community College, Sidney; Washtenaw Community College, Ann Arbor.

N = 30

b. Members of the Michigan Department of Education's Vocational Education and Career Development Service professional staff. This sample is a saturation sample. The respondents are taken from the population of professional staff of the thirteen major services of the Michigan Department of Education.

N = 30

Procedure

Community college presidents and the selected members of the Michigan Department of Education were asked in-person or by phone to particpate in this study. Community college presidents decided if their colleges would participate and, if affirmative, were asked to identify the top five decision-makers at the college (including themselves). They asked for compliance from their respective staff members.

The investigator set up appointments to visit the college campuses and to meet with VECDS staff. Approval was obtained from Personnel Services and from the State Director of the Vocational Education and Career Development Service to interview VECDS professional staff during office hours. The investigator took leave time from her position with the MDE to visit the community college campuses.

First, a pre-test was conducted at Lansing Community College and Delta Community College to check wording and to determine the meanings which the questions elicited. For the pre-test, respondents filled out the questionnaire and were then personally interviewed about the questionnaire. The wording of some items was altered following the pre-test, but no major structural changes were required. As a result of the pre-test, it was decided that questionnaires whould be administered and collected personally to assure their return.

Questionnaires were administered to respondents in their offices by the researcher with an explanation that the research was being conducted to determine the current descriptions of career education according to community college administrators and the Michigan Department of Education. The researcher personally gave them the questionnaires and, in most cases, remained with the respondent while he completed the questionnaire. In the cases where respondents were not present due to illness or prior commitments, the research gave the questionnaire to the respondent and was mailed the response within a couple days.

Respondents were assured that findings would be reported by groups of people and that indidivual names would never be attached. Respondents were also told that the study is <u>not</u> an offical Michigan Department of Education study although recommendations based on results of the study will be made to the Department. This was to reduce any stigma which may

have been placed on the study if it was perceived as a "state department document" due to the researcher's professional affiliation with the Michigan Department of Education. Respondents were also told that they would receive a short resume of findings at the completion of the study.

As a validity check, in personal interviews, respondents were each asked whether they felt that the questionnaire got at their true feelings concerning career education or whether their responses were forced. All said that the questionnaire allowed them to respond honestly and to their satisfaction. A validity check of the questionnaire was also determined on the computer and is available from the investigator.

As a further check, administrators at Grand Rapids Junior College were given the questionnaire to determine if results of the current study can be generalized beyond the colleges in the sample. Grand Rapids Junior College was selected because it appeared to the investigator to be the most dissimilar to the sample colleges. GRJC is still a large, urban junior college whose students are mostly transfer rather than career students. It is assumed that if results from the present study samples are generalizable to the GRJC sample, then results of the present study should be generalizable to the other community colleges.

Instrumentation

The present study is exploratory and descriptive in nature since no cause and effect relationships exist. The purpose of a descriptive study is to describe systematically, factually, and accurately the facts and characteristics of a given population (Van Dalen and Meyer, 1966).

The present study employs the survey method. According to Van Dalen and Meyer (1966) the purpose of the survey is the following:

(1) to collect factual information that describes existing phenomena;

(2) to identify problems or justify current conditions and practices;

(3) to make comparisons and evaluations; and

(4) to determine what others are doing with similar problems or situations and benefit from their experience in making future plans and decisions.

The factual information in the present investigation regards the meaning of career education at the community college level. The current "state of the definition" is identified and comparisons are made between community college administrators and selected state department personnel.

The most appropriate statistics to be used in an exploratory, descriptive study of affective and operational definitions are the semantic differential, Likert-type scales, and factor analysis

(Troldahl, 1971). The semantic differential has been validated as a measure of affective meaning of concepts (Osgood, 1952). Therefore, the semantic differential would enable determination of the affective meaning of career education and, thus, fulfill one of the purposes of this study. Likert-type scales would allow one to determine how people are operationally defining career education programs and, hence, fulfill another purpose of this study. Factor analysis would assist in determination of the real underlying factors which yield any differences which may exist between the VECDS and CC samples.

Therefore, the questionnaire for the study was initially composed with the exploratory statistics in mind. One section is composed of semantic differential items, another of Likert-type items, and another of background items which lend themselves along with the rest of the questionnaire to factor analysis.

Following are sections briefly describing the semantic differential, Likert-type scale, and factor analysis techniques.

Semantic Differential

The semantic differential technique measures the meaning rather than the attitude of an object or event to a person (Robinson & Shaver, 1969, p. 55).

The semantic differential is a procedure rather than a specific test. Scales are selected because of their known factor composition and, therefore, can vary depending on appropriateness to the concept being studied. Both verbal and nonverbal signs (cartoons, sound patterns) can be studied with the procedure. The procedure has been applied to studies of attitude change, psychotherapy, dream interpretation, political symbolism, aesthetics, anthropology, marketing, and psycholinguistics. (Osgood, Suci, and Tannenbaum, 1957).

It appears that previous studies of the education field which have employed any sort of semantic analysis have focused on readability of instructional materials (Martin, 1936; McClelland, 1961; Page, 1965). These studies have been used to classify reading materials according to grade level. (Osgood, Suci, and Tannenbaum, 1957)

In general, the semantic differential has been used: (1) to measure semantic properties of words and concepts in three-dimensional semantic space; and (2) to measure attitude of the affective domain. (Osgood, Suci, and Tannenbaum, 1957)

The purpose of the semantic differential is to differentiate concept meanings along multiple variables in terms of a limited number of known semantic scales (Osgood, 1952). A concept is described along an experiential continuum which is defined by a pair of polar terms. Osgood claims that content of most complex verbal

associations can be reduced to allocation of a concept to a scale of bipolar adjectives. The more intense the strength of the association between the concept and one of the bipolar adjectives, the closer to the extremity of the scale will be the response allocation. (Osgood, 1952)

Three basic elements compose a semantic differential scale:

(1) the concept,

(2) the polar adjective pair, and

(3) a series of undefined scale positions. (Osgood, Suci, and Tannenbaum, 1957)

To obtain an objective measure of the semantic properties of words and concepts, Osgood, et. al. (1957) factor analysed 76 pairs of adjectives which were opposite in meaning (i.e., polar adjectives). Three primary factors: evaluative (e.g. good-bad), potency (e.g., easy-hard), and activity (e.g., fast-slow), were identified. Bipolar adjectives were classfied by means of high and pure loadings of numerical quantities on each of the factos. (Osgood, et. al., 1957).

The semantic differential measuring device is assumed to provide an index of the psychological state which is elicited when a sign is presented to the respondent. The semantic differential combines both association and scaling procedures. (Osgood, et. al., 1957).

The semantic differential assumes that different continua are equivalent and can be represented by a single dimension. For example,

scales, such as good-bad, kind-cruel, fair-unfair, are very highly correlated and represent a single, in this case "evaluative," factor. Means of the scales may be summed to obtain the mean for each factor (Ibid., 1957)

Another assumption of the semantic differential is that a limited number of continua suffice to describe semantic space in which any concept can be specified. This indicates that some form of factor analysis can be used as the methodology in analysis. (Ibid., 1957)

The semantic differential assumes that the meaning of any concept can be specified as an intercept point in the n-dimensional semantic space which is defined by the factors (Ibid., 1957). In the present situation, the semantic space has three dimensions (potency, activity, and evaluative).

Scale scores can be analyzed for differences between scales or subjects. A t-test or Median test indicating any significant difference between group means or medians for individual scales or all scales can be determined. (Van Dalen,and Meyer, 1966)

In the present study, scale scores between subjects in the two samples were analyzed. The assumption was made that the scale was one of equal intervals. A limitation of using the semantic differential technique is that findings may be a result of the bipolar adjective pairs which were selected rather than as a result of actual meaning.

For the present study (see Appendix II), adjective pairs used for the semantic differential were selected by Troldahl and are derived from Osgood, Suci, and Tannenbaum (1957). Troldahl selected only adjectives which have high loadings on the primary factor and low loadings on all other factors. His validation of the purity of the factors allows their summation (Troldahl, 1971).

Responses to the first adjective pair which appears in the questionnaire, "interesting - uninteresting," is not analyzed since the adjective pair is included in the questionnaire only as a lead-in to the other adjectives.

The other adjectives are factors of potency (P), activity (A), and evaluation (E). Each type of factor appears as every third item in the list. The list of bipolar adjectives appears below with the factor codes:

Code	Bipolar Adjectives
P+	Strong - Weak
A-	Still - Vibrant
E+	Pleasant - Unpleasant
P-	Light - Heavy
A-	Passive - Active
E+	Good - Bad
P-	Sad - Happy
A+	Modern - Old-Fashioned
E-	Tasteful - Distasteful
P+	Masculine - Feminine
A+	Fresh - Stale
E-	Worthless - Valuable

"P" in the code refers to the potency factor; "A" to the activity factor; and "E" to the evaluative factor of the semantic differential. A plus indicates that a score of 7 is given to any response in the left-most blank, continuing with a score of 6 for the next blank, on down to a 1 for the right-most blank. A minus indicates that scores for responses range from 1 to 7 with 1 in the left-most blank and 7 in the right-most blank:

plus: 7 6 5 /4/ 3 2 1

minus: 1 2 3 /4/ 5 6 7

Each factor appears four times as every third adjective pair in the questionnaire used in this study. This ordering is to assure that significant responses are not artifacts of order. Two pluses and two minuses are used in the scoring of each factor so that any left-right bias is excluded. The design of the bipolar adjectives allows for independence of judgements.

The computer program devised for the analysis of this semantic differential sums the four potency factors, the four activity factors, and the four evaluative factors. The sum scores run from 4 to 28. Each factor summation potentially runs from -12 to +12, since theoretically the scores run from -3 to +3, for a single factor score and each factor appears four times.

Scoring of the questionnaire responses is based on a 1 to 7 scale instead of the -3 to +3, since using negative numbers complicates the computer programming.

In the present study, responses are converted so that all were positive and based on the semantic differential scale ranging from one to seven. Scale means indicate how, on the average, respondents from each sample affectively define career education. Results appear in Chapter IV.

Likert-Type Scales

Likert-type scales are used in the present study to determine perceptions of the VECDS and CC samples to an *a priori* definition of career education. The most common Likert scale has five rating points among which the respondent may choose. The midpoint of the scale is the neutral point. In the present study the middle, neutral point is eliminated so that the respondent is faced with a forced choice. The reason for the forced choice is that the investigator is interested in finding out the actual perceptions of respondents. She believes that career education is a "hot" enough issue so that persons would have some opinion but that they might take the neutral position as an easy way out if given the opportunity.

All observational methods are inferential. Objectivity of observational methods depends on prescribed rules which determine the score given by coders. A scale is a measuring device which

assigns numbers to the responses of individuals. The responses indicate the extent to which the individual possesses a corresponding amount of whatever the scale claims to measure. (Isaac and Michael, 1972)

Likert-type or summated rating scales are composed of items approximately equal in value loading or attitude. Responses in degress of intensity are made on a scale by respondents. Integral values are assigned to each scale point. The responses can then be summed or the average of the scores may be calculated. (Likert, 1932)

The present study used a summated rating scale of four items:

Score	Item
1	Not Important At All
2	Not Very Important
3	Important
4	Very Important

The scale has been validated for the equality of perceptual space between items (Troldahl, 1971). Therefore, the above scale is an equal interval scale which may be summated.

Isaac and Michael (1972) indicate that summated rating scales are useful in behavioral research, since they are easier to develop and yield approximately equal information as do more complex, equal-appearing interval scales. The summated scale also obtains greater variance. A disadvantage, which applies to all scales, is the possibility that the variance will bias response set in one direction.

Sometimes the saliency of items may not justify the summation. The summation way also lead to ambiguous interpretations because of the middle category of a five-point Likert scale. The middle score could be obtained from responses which were all "undecideds," half positive and half negative responses, or some combination which happens to average to the neutral position. (Shaw and Wright, 1967)

As mentioned earlier, in order to avoid any confusion in interpretation, the middle category was omitted in the present study. The result is a forced choice Likert-type scale as recommended by Shaw and Wright (1967).

The Likert-type scale is applied in this study to the career education theme items which were developed as follows:

A panel of experts from the Michigan Department of Education was utilized to develop an a priori definition of career education. Those persons identified by the State Director of the Vocational Education and Career Development Service as most knowledgeable concerning the career education concept.

The panel of experts was asked to list the items each considered essential to career education programs in the community college. The lists were combined by the investigator and the top ten most frequent items selected. The ten items were re-submitted to the panel. Each person was again asked to select the items which he considered vital for the existence of career education programs at the community

college level. From the responses, the investigator established six major career education themes.

Career Education Themes

The career education themes are as follows:

1) Goal-oriented Theme
2) Articulation Theme
3) Infusion Theme
4) Community Communication Theme
5) Professional Growth Theme
6) Openness Theme

The above career education themes were used to develop the Likert-type items 31 through 80 in the questionnaire (see Appendix II). Below is the categorization of those items:

I. Goal-Orientation Theme

Those activities designed to establish overall mission, set goals, determine priorities and develop performance objectives. These activities include:

1. Evidence that mission, goals and performance objectives have been set (written statement).
2. Evidence of priorities and rational for these (written statement).

II. Articulation Theme

Those activities designed to develop internal and external articulation of career education programs. These activities include:

1. Formal organization structure which identifies a key person(s) responsible for articulation.
2. Evidence of cooperative planning within CEPD.
3. Evidence of inter-school articulation with all other schools.
4. Evidence of joint use of facilities with other schools or agencies.
5. Evidence of sharing of staff members.
6. Evidence of joint use of advisory committees.

III. Infusion Theme

These activities designed to infuse, or integrate, career related curricula. These include those activities designed to implement both the career development and the career preparation components of career education:

1. Self Awareness Component -- those activities designed to give the student awareness of himself so that he may assess his abilities and goals and develop personal decision making skills which will allow him to achieve those goals.
2. Career Awareness -- those activities designed to allow the student to explore careers and receive occupational exposure.

3. Career Planning -- those activities designed to develop decision-making skills and understanding of the planning process so that the student's career goals may be achieved.
4. Career Preparation -- integration of academic and vocational-technical program components along with guidance services.
5. Placement -- those activities designed to insure placement of students in a job or in further education.

IV. Community Communication Theme

Those activities designed to develop communication networks with a community to cultivate ongoing involvement of business, industry, labor, higher education institutions, secondary schools, private schools and other agencies.

These include:

1. Evidence of development of community plans.
2. Evidence of actual activities held either between the college and one or more of these agencies or community-wide.

V. Professional Growth Theme

Those activities designed to bring about professional development of administrators and faculty in the area of career education. These activities include pre-service and in-service training.

VI. Openness Theme

Those activities designed to develop an open structure so that students may leave and re-enter the formal education

system throughout life. These include placement tests, personal interviews, and ability to transfer courses.

In addition to the panel of experts, the career education themes are supported by the following authors in the literature:

1. Goal-orienatation theme -- Bloom, et. al., 1956; Bottoms, 1972; Cohen, 1969; Goodlad, 1964; Guba, 1965; Krathwohl, 19 1965; Loomis, 1971; Mager, 1962; Marland, 1972; Moore, 1972.
2. Articulation theme -- Goldhammer, 1972; Marland, 1972; Parnell, 1969.
3. Infusion theme -- Goldhammer, 1972; Herr, 1972; Hoyt, March 1972; Marland, May 4, 1971; Moore, 1972.
4. Communication theme -- Culbertson, 1963; Goldhammer and Elam, 1962; Havelock, 1970; Michigan Department of Education, 1968; Rogers, 1962.
5. Professional Growth theme -- Briggs, 1971; Goldhammer, 1972.
6. Openness theme -- Goldhammer, January, 1972; Marland, 1972.

Factor Analysis

Factor analysis is applied in this study to the Likert-type items of the career education themes and the the background items which are discussed in the next section. A large portion of education and psychological research has consisted of construct investigation or validation. These types of studies require factor analysis. Factor analysis, therefore, has become accepted as an analytical method in the field of education. (Kerlinger, 1964)

Factor analysis is commonly used as a descriptive technique where the theory underlying use of the indices is either not in existence or in need of clarification. The purpose of factor analysis is: (a) exploration of variables to determine underlying factors; and (b) hypothesis testing of relations among variables (Ibid., 1964). The present study is concerned with (a) determination of underlying factors.

Factor analysis can be conceived of as a tool for construct validity. Constructivalidity searches for the "meaning" of a construct in terms of its relationship with other constructs. Definitions which define constructs by means of ther constructs are referred to as constitutive definitions. Factor analysis is a constitutive meaning method which enables study of the constitutive meanings of constructs and their validity. (Ibid., 1964)

Each item, or index, may be measuring several underlying factors simultaneously. The index will have some sort of correlation in varying degrees, with each factor. One of the goals of factor analysis is to estimate the correlation each index has with the possible factors in order to determine what those factors may be. The major advantage is to replace numerous indices, which alone have little theoretical meaning, with a conceptual variable, or construct. (Blalock, Jr., 1960)

Usually, if the questionnaire form is valid, indices will tend to cluster. By identifying and examining the items in each cluster, one can determine what commonality exists among the individual items. The commonality is labeled as the factor. (Ibid., 1960)

The factor analysis technique assumes linear relationships among indices. Since clusters themselves can be intercorrelated, factors must be "rotated." The purpose of rotation is to obtain factors which will highly correlate with some indices but not with the rest. "Factor loading" is the term used to refer to the correlation of an index and a given factor. (Ibid., 1960)

Disadvantages of the factor analysis method include the possibility of attributing "reality" to factors which may not exist. Naming of factors is always tentative -- subject to change at a later time. Actually, anything that produces correlation among variables "creates" a factor. Demographic characteristics, response sets, test forms, and the use of different samples are all capable of causing factors to appear. Another disadvantage is the subjectivity that enters the rotations. (Ibid., 1964, p. 683)

As Kerlinger (1964) points out, educators seem to mistrust the method because of its statistical complexity. He demonstrates that factors do emerge repeatedly with different samples, conditions, and tests. When similar results occur repeatedly, one can be fairly certain that some underlying trait is being measured.

In the present study, factor analysis is applied to all questionnaire items except the semantic differential items. The reason the semantic differential is excluded is that the scales have been previously factor analyzed and validated as the activity, potency, and evaluation factors. (Troldahl, 1971)

Factor analysis of the background items and the career education themes may yield the underlying factors which acutally determine how respondents define career education in the community college setting.

Background Characteristics

In addition to the semantic differential items and Likert-type items, questions pertaining to demographic characteristics of the samples appear in the questionnaire and are factor analyzed. The items include place of employment, job position, recency of university course attendance, highest degree earned and predominant field of study and previous work experience.

Although no direct, substantive research has been conducted in the above areas, the researcher believes that in an exploratory study, such as the current one, such demographic data should be explored. A reason is that the researcher has personally been told by numerous community college administrators that the discrepancies in viewpoints which exist between the colleges and the state department are because of the above mentioned variables.

Administrators have claimed that people at the state department have been out of college longer, hold lower academic degrees, predominantly majored in vocational-technical areas rather than academic areas, have had most, if not all, of their previous work in a kindergarten through twelfth grade district, and, on the average, have spent less time in their present position than have community college administrators. No studies have been conducted to determine if the claims are warranted. Therefore, the present study includes a background section.

See Appendix II for the complete code book of the questionnaire and response scales for the present study.

CHAPTER IV

RESULTS

Introduction

The purpose of the present chapter is to present the results of the study. The actual raw data appears in Appendix III. Means, standard deviations, and variances follow this introduction in table form with brief narrative explanations.

Tables one through three refer to the results of the affective responses to semantic differential items of the questionnaire. Table four shows comparisons of the background items. The Likert-type items denoting career education themes appear in tables five through fourteen. Tables fifteen and sixteen contain the items which comprised the factors obtained when the factor analysis technique was applied to all questionnaire items other than the semantic differential items because the items had been validated (Troldahl, 1971) as comprising the activity, potency, and evaluative factors prior to this study.

Semantic Differential

The semantic differential item results follow in three tables.

TABLE 1
COMPARISON OF SEMANTIC DIFFERENTIAL FACTORS

	VECDS		COMM. COLLEGE		CHECK	
Factors	Mean	S.D.	Mean	S.D.	Mean	S.D.
Potency	4.8	1.4	4.8	1.4	4.8	1.4
Activity	5.9	1.4	5.7	1.3	5.6	1.3
Evaluation	5.3	2.0	5.4	2.0	4.9	1.6

Table 1 indicates that there is no significant difference (.05 level) between the Vocational Education and Career Development Service (VECDS) sample and the community college (CC) sample on the semantic differential factors. The scale ranges from one to seven with one being the lowest and seven the highest degree of each factor. Since four is the midpoint, both samples are defining the concept of career education as a concept with above-average amount of potency, activity, and positive evaluation.

TABLE 2
VARIANCE OF SEMANTIC DIFFERENTIAL FACTORS

Factors	VECDS	Comm. Coll.	Check
Potency	2.0	2.0	1.1
Activity	2.0	1.6	1.6
Evaluation	4.1	4.2	2.6

The variances shown in Table 2 are high for both VECDS and CC samples. The sample check shows a lower variance. Since only five respondents comprise the check sample, the lower variance is misleading and probably is due to sample size.

TABLE 3
MEAN CORRELATIONS OF SEMANTIC DIFFERENTIAL

Factors	Comm. Coll. With VECDS	Comm. Coll. With Check	VECDS With Check
Potency	-0.1	0.9	0.1
Activity	0.3	0.5	1.0
Evaluation	-0.0	0.7	0.7

In Table 3, mean correlations between the CC and VECDS samples are not significant. Two of the correlations are negative but quite small. The CC with the check samples correlate quite highly (Between 0.5 and 0.9). VECDS also correlates highly with the check sample on activity (1.0) and evaluation (0.7). The effect may be due to the small sample size of the check sample.

Several background items (See Table 4 on the next page) are significantly different for the VECDS and CC samples:

Background Items	VECDS	CC
Hi Degree & Field	67% M.A. - Voc.	50% M.A. - Voc. & Acad. 33% Ph.D. - Voc.
Time in present position	2 - 3 years	4 - 6 years
Time in CC	less than 6 months	7 - 10 years
Time work at 4-yr. college	less than 6 months	6 months - 1 year
Experience at State Level	4 - 6 years	less than 6 months
Time in Military	less than 6 months	1 year
Time government employee	4 - 6 years	less than 6 months

The significant differences indicate that the "average" person in either the VECDS or the CC has a Masters degree in a vocational area. Community college administrators have worked in their present position, at a 4-year college, and in the military twice as long as have state personnel. CC administrators on the average, have worked in the CC setting twice as long as VECDS personnel have worked for the state. VECDS personnel have almost no CC work experience, while CC administrators have almost no state level experience.

TABLE 4
COMPARISON OF BACKGROUND ITEMS

	VECDS		COMM. COLL.	
Item Codes	Mean	S.D.	Mean	S.D.
2,3	13.4	1.7	3.1	2.0
4	2.9	1.3	3.1	1.0
5	4.7	1.5	5.2	2.5
6	4.2	1.6	4.9	.9
7	4.5	2.4	4.3	2.5
8	.9	1.9	5.9	1.2
9	1.2	2.2	2.0	2.4
10	5.3	1.7	.5	1.7
11	4.1	1.7	4.5	1.9
12	.6	1.3	.6	1.5
13	1.1	1.7	2.0	2.5
14	1.5	1.9	1.6	2.0
15	.7	1.2	.8	1.5
16	1.1	1.8	2.9	1.9
17	5.0	2.3	1.0	2.2
18	.9	2.0	1.2	1.7

TABLE 5
COMPARISON OF CAREER EDUCATION THEMES

	VECDS		COMM. COLLEGE		CHECK	
Factors	Mean	S.D.	Mean	S.D.	Mean	S.D.
Goal-Orientation	3.7	0.5	3.8	0.4	3.5	0.8
Articulation	3.4	0.7	3.3	0.8	3.3	0.7
Infusion	3.5	0.7	3.4	0.8	3.3	0.9
Community Communication	3.3	0.8	3.4	0.8	3.5	0.6
Professional Growth	3.5	0.7	3.4	0.6	3.2	0.9
Openness	3.5	0.8	3.7	0.6	3.2	1.2

No significant differences exist within or between the career education themes shown in Table 5. Means indicate that in all three samples, respondents perceived the career education elements as important to very important for career education programs.

TABLE 6
VARIANCE OF CAREER EDUCATION THEMES

Themes	VECDS	Comm. Coll.	Check
Goal-Orientation	0.2	0.2	0.6
Articulation	0.5	0.6	0.5
Infusion	0.5	0.6	0.8
Community Communication	0.6	0.7	0.4
Professional Growth	0.4	0.4	0.9
Openness	0.6	0.4	1.3

Table 6 shows a fairly low amount of variance among career education themes. The variance is lower than that which was found in the semantic differential.

TABLE 7
MEAN CORRELATIONS OF CAREER EDUCATION THEMES

Career Education Themes	Comm. Coll. With VECDS	Comm. Coll. With Check	VECDS With Check
Goal-Orientation	-0.7	-0.8	1.0
Articulation	0.1	-0.6	0.6
Infusion	0.4	0.3	0.2
Community Communication	0.0	0.2	0.4
Professional Growth	0.5	0.9	0.8
Openness	0.9	1.0	0.8

Mean correlations in Table 7 are negative on the goal-orientation theme for the CC/VECDS and CC/CK samples. The CC/CK sample is negative on the articulation theme. The goal-orientation theme is highly correlated with all three combinations of samples, although two of them are in the negative direction. The articulation theme is fairly high for the CC/CK and VECDS/CK samples. Professional growth is very high for CC/CK and VECDS/CK samples. The openness theme is very high for all samples.

TABLE 8
COMPARISON OF GOAL ORIENTATION THEME ITEMS

	VECDS		COMM. COLL.	
Item Codes	Mean	S.D.	Mean	S.D.
31	3.7	.5	3.9	.3
32	3.7	.6	3.8	.4
33	3.8	.4	3.8	.4

The goal orientation theme items shown above indicate no significant differences between the two samples.

TABLE 9
COMPARISON OF ARTICULATION THEME ITEMS

	VECDS		COMM. COLL.	
Item Codes	Mean	S.D.	Mean	S.D.
34	3.4	.7	3.3	.9
35	3.5	.6	3.3	.9
36	3.7	.5	3.5	.6
37	3.4	.6	3.5	.7
38	3.2	.7	3.3	.7
39	2.9	.8	2.9	1.0
40	3.6	.5	3.6	.5
41	3.3	1.0	3.1	.8
42	3.8	.4	3.8	.4
43	2.9	.8	2.9	1.0

No significant differences are indicated among the articulation theme items shown above.

Table 10 (see following page) points out several significant differences on the infusion theme between the VECDS and CC samples:

Infusion Theme	VECDS	CC
Infusion of careers curr.	3.5	2.9
Guarantee job placement	3.5	3.0
Buarantee placement into HE	3.3	2.7

State department personnel tend to place more importance on the above stated infusion items, whereas community college administrators perceive the items as a little less than important.

TABLE 10
COMPARISON OF INFUSION THEME ITEMS

	COMM. COLL.		VECDS	
Item Codes	Mean	S.D.	Mean	S.D.
44	3.3	1.0	3.7	.5
45	2.9	1.1	3.5	.9
47	3.3	1.0	3.4	.8
48	3.8	.4	3.7	.5
	3.7	.5	3.8	.5
50	3.7	.5	3.7	.5
51	3.6	.6	3.6	.6
52	3.6	.6	3.7	.5
53	3.6	.6	3.8	.4
54	3.6	.7	3.7	.5
55	3.8	.7	3.6	.5
56	3.6	.5	3.4	.7
57	3.5	.7	3.3	.8
58	3.1	.8	3.3	.8
59	3.0	1.4	3.5	.7
60	2.7	1.2	3.3	.8
61	3.7	.6	3.7	.5
62	2.5	.7	2.5	1.0
63	3.7	.7	3.7	.6

TABLE 11
COMPARISON OF COMMUNITY COMMUNICATION THEME ITEMS

	VECDS		COMM. COLL.	
Item Codes	Mean	S.D.	Mean	S.D.
65	3.5	.6	3.6	.7
66	3.6	.6	3.8	.4
67	3.3	.8	3.1	.8
68	3.5	.6	3.6	.5
69	3.3	1.0	3.4	.7
70	2.9	1.0	2.8	1.1
71	3.1	.8	3.2	1.0

Community communication items are not significantly different for the VECDS and CC samples (Table 11). Within each sample, the item reflecting ongoing involvement of teacher unions in establishing career education programs in the community college is lower than the other items. It is rated as a little lower than "important".

TABLE 12
COMPARISON OF PROFESSIONAL GROWTH THEME ITEMS

	VECDS		COMM. COLL.	
Item Codes	Mean	S.D.	Mean	S.D.
72	3.7	.7	3.7	.6
73	3.6	.7	3.5	.6
74	3.5	.6	3.1	.6
75	3.1	.6	3.3	.7

Table 12 shows the requirement of work at regular intervals outside of education for teachers as significantly different between the VECDS (3.5) and CC (3.1) samples for professional growth. The same item is significantly lower within the CC sample. Attendance to conferences and workshops concerning career education is a significantly lower item within the VECDS sample.

TABLE 13
COMPARISON OF OPENNESS THEME ITEMS

	VECDS		COMM. COLL.	
Item Codes	Mean	S.D.	Mean	S.D.
77	3.6	.8	3.5	.9
78	3.9	.4	4.0	.2
79	3.2	.9	3.3	.8
80	3.2	1.0	3.6	.9

The importance of waiver examinations for advance placement differs between the VECDS (3.2) and the CC (3.6) samples (Table 13). Community college people rate the item as more important than do state people. Placement tests and waiver exams are lower within the VECDS sample, while the CC sample shows placement tests as significantly lower within. Variance on the openness theme items tends to be fairly high.

The "negative" questionnaire items appear in Table 14. (see following page) Response to "a specific unit or course about careers" is significantly lower in the VECDS sample (1.8) than in the CC sample (2.3). Within the VECDS sample there are no significant differences among negative items. Within the CC sample, administrators significantly rated "career education programs only for vocational-technical students" lower than the other items. The reason is probably due to the MDE's constant reminder to the community colleges that career education is more than vocational education. MDE's position on the other items is nebulous. Generally, responses to negative items tended to be "not important".

TABLE 14
COMPARISON OF "NEGATIVE" ITEMS

	VECDS		COMM. COLL.	
Item Codes	Mean	S.D.	Mean	S.D.
34	1.8	.9	2.3	.9
52	1.7	1.1	1.5	.7
64	1.8	1.0	2.1	1.0

Factor Analysis

The factors which appear from the factor analysis are contaminated, since the career education themes loaded on the same factors. Since only a small portion of the variance is explained by the factors (32% for VECDS and 33% for CC), results are difficult to label.

Table 15 (see next page) for the VECDS sample tends to indicate "self-development information" as Factor I and "previous experience" as Factor II. Factor III might be called "job preparation." The CC sample in Table 16 (following Table 15) seems to indicate "information gathering" as Factor I, Factor II does not readily lend itself to any label, and Factor III seems to imply some sort of sharing among various groups.

The factors are contaminated and very weak, so, even though labels have been established, the reader is cautioned in his use of the labels.

TABLE 15
ITEMS COMPRISING FACTORS FOR THE VOCATIONAL EDUCATION AND CAREER DEVELOPMENT SERVICE

FACTORS

I (explains 16% var.)		II (explains 8% var.)		III (explains 8% var.)	
Measure	Factor Loading	Measure	Factor Loading	Measure	Factor Loading
Exp. in bus. & ind.	.41	Position	.54	Training in factory	.42
Goals & PO's	.54	Time in present position	.61	Training clerical	.61
ID key liaison	.35	Work exp.	.46	Work exp. in gov't.	.47
Student Testing	.42	Work exp.	.54	Joint facilities	.37
Self-assessment	.82	Work exp.	.55	Infusion	-.65
Info. & occup. exposure	.74	Use facilities of bus.	.46	Specific unit on careers	.58
Placement tests	.56	Bus. Resource	.73	Involve all faculty & community in guidance	.53
OJT	.62				
Decision making	.69	Use people without degrees	.53	Permanent placement staff	.68
Integrate programs	.56	Pre-service training in CE	.55	Follow-up	.49
Waivers	.59			Outside-ed. work by faculty	-.44
Counseling	.47				
Testing service	.53				
Ed. obj.	.60				
Place into HE	.70				
Info.	.60				
Info. exchange	.74				
Com.	.68				
Com.	.77				
CC info. exchange with MDE	.45				
Reg. in-service	.51				
Attend conf. on CE	.57				
Transfer cr.	.62				
Re-enter & leave	.66				

TABLE 16
ITEMS COMPRISING FACTORS FOR COMMUNITY COLLEGE ADMINISTRATORS

FACTORS					
I (explains 13% var.)		II (explains 10% var.)		III (explains 10% var.)	
Measure	Factor Loading	Measure	Factor Loading	Measure	Factor Loading
Exp. in bus. & ind.	.41	Position	-.59	Goals & PO's For VE & academic	.43
Mgr. outside ed.	.41	U attendence recency	.46	Inter-institute articulation	.68
ID key CC liaison	.59	Hi degree & field	.58	Joint facilities	.69
Bus. & ind. resources	.56	Time in present position	.55	Share staff	.64
Relate course work to careers	.72	Time as teacher	.47	Use of bus. & ind. people	.72
Infusion	.59	Time as faculty At U.	.57	Joint use of advisory committee	.47
Testing	.74	Training in military	.48	Student decision-mkg. skills	.54
Occup. experience	.42	Total time self-employed	.43	Non-guide faculty in guidance	.64
Carrer prep. integration	.52	Overall college mission	.48	Info. exchange with comm. bus. & industry	.55
Voc. guidance	.69	Self-awareness activities	.69	Dialogue: private schools	.62
Counseling	.78	Assist students in self-assess	.65	Openness	.34
Guidance testing	.56	Info. exchange in depts.	.61		
Permanent placement staff	.60	Involve labor unions in CE	.65		
Follow-up	.83	Advance placement	.33		
Info. exchange with MDE	.37				
Attendance to CE conf.	.82				

Correlations

Correlations were computed on background and career education items. The resultant 66 x 66 matrix is based on the raw data (Appendix III). A brief description of the correlation matrix follows. Only significant items (.05 level), above .306, are discussed.

Background items correlated moderately with themselves for both the Vocational Education and Career Development Service (VECDS) and community college (CC) samples. Moderate correlation here means that only two or three correlations out of the entire 66 x 66 array correlated significantly. "Position" appeared as the predominant correlating item in the CC sample.

Goal-orientation items correlated only moderately with background items for both VECDS and CC samples. Articulation theme items showed a very moderate correlation with background items for both samples. The CC sample also indicated an internal correlation of articulation items with themselves. The predominant items included "inter-institutional articulation," highest degree and field, joint use of facilities in education and business and industry, and the use of business and industry persons as instructors.

In the case of the infusion theme, the VECDS and CC samples differed. The VECDS sample correlated significantly within the infusion theme on forty-nine items. Self-awareness and self-

assessment were most frequent. The CC sample showed significant correlations between the infusion theme and the articulation theme on thirty-six items. The use of business and industry's facilities correlated more frequently than did any other items.

The community communication theme correlated with the infusion theme on forty-seven items in the VECDS sample. Assistance in self-assessment, information and occupational exposure, and counseling items appeared most frequently. In the CC sample, the community communication theme only modestly correlated with the articulation theme on fifteen items. Of those items, inter-institutional articulation was predominant.

The professional growth theme correlated with the infusion theme on twenty-three items (infusion of a careers curriculum predominated) and only modestly (thirteen items) with the community communication theme for the VECDS sample. The CC sample tended toward the background items and articulation theme although the numbers of significant correlations were low (eight and five).

In terms of the openness theme, the VECDS showed a significant correlation between openness and the infusion theme on thirty-three items. There also were correlations with the community co communication theme on sixteen items. Self-assessment, decision-making skills, and communication with business and industry, private schools and other colleges or universities correlated most frequently. The CC sample demonstrated a moderate tendency

toward correlation of the openness theme with eleven background items. The predominant theme which correlated was "the total amount of time in present position."

Chapter V

CONCLUSIONS AND IMPLICATIONS, AND SUGGESTIONS FOR FURTHER RESEARCH

The purposes of the present chapter are to present a summary of the study, the major conslusions and the implications derived from the investigation, and suggestions for further research.

Summary of the Problem

The purpose of the exploratory study was to make a comparative analysis of the perceptions of selected state department officials and community college administrators in Michigan as those perceptions pertain to the basic nature of the career education concept in the community college setting. Meaning which each sample had for the concept was measured in terms of: (a) affective responses to the term, "career education," as revealed by a semantic differential inventory; and (b) cognitive responses to an *a priori* definition of critical elements of career education as defined by a panel of experts.

The philosophical, sociological, economic, and legal bases for career education were established. A brief discussion of the current condition of career education in the community college led to identification of the following needs:

(1) determination of how community college (cc) administrators and Michigan Department of Education (MDE) personnel respectively describe career education in a community college setting;

(2) identification of commonalities and differences between CC and MDE; and

(3) recommendation to the MDE with regard to its communication approach with Michigan's CCs in developing career education programs in a community college setting.

Review of the literature pointed out the confusion concerning the definition of career education. Antecedents of the career education concept were discussed. The present components of career education and the community college role established the fact that career education does and should exist at the post secondary level.

Summary of Data Collection

The samples were composed of 30 selected state officials of the Vocational Education and Career Development Service (VECDS) of the Michigan Department of Education and 30 selected administrators from six Michigan community colleges (CC). The in-person questionnaire survey method was utilized.

An additional community college was used to determine generalizability of the sample. Instrumentation included the semantic differential, Likert-type scales, and factor analysis. Each measuring technique was discussed briefly in terms of suitability advantages, and disadvantages. The measuring techniques were applied to coded data to determine results.

Findings of the Study

The findings of the study are summarized below: (.05 level of significance)

1. No significant differences exist between VECDS and CC samples for semantic differential factors.

2. VECDS and CC samples respectively correlate highly with the generalizability check sample.

3. Several background items are significantly different between the VECDS and CC samples:

   The significant differences indicate that the "average" person in either the VECDS or the CC has a Masters degree in a vocational area. Community college administrators have worked in their present position, at a 4-year college, and in the military twice as long as have state personnel. CC administrators on the average have worked in the CC setting twice as long as VECDS personnel have worked for the state. VECDS personnel have almost no CC work experience, while CC administrators have almost no state level experience.

4. On the average, respondents in all three samples (including the check) perceived the career education elements as "important" to "very important" for career education programs. No significant differences appeared between or within group means.

5. Significant differences appeared between samples VECDS & CC) when sorted on the significantly different background items.

6. The CC sample correlates negatively to a significant degree with both the VECDS and check samples on the goal-orientation theme. The openness theme shows a high correlation among all samples.

7. Neither goal-orientation nor articulation items contain any significant differences between or within samples.

8. Several significant differences appear between VECDS and CC for the infusion theme. Community college administrators perceived infusion of a careers curriculum, guaranteed job placement, and guaranteed placement into higher education as tending toward a little less than "important." VECDS personnel viewed these items as "very important."

9. No significant differences exist for community communication items. Both VECDS and CC perceived "ongoing involvement of teacher unions in establishing career education programs in the community college as less than "important." The rating reflects a negative response to the item.

10. The professional growth theme showed the requirement that faculty be required to work outside of education at regular intervals as significantly lower for the CC than for the VECDS although both groups viewed it as "important." The item was also significantly lower within the CC sample than other items composing the professional growth theme. Within VECDS attendance to conferences and workshops concerning career education was perceived as significantly lower than the other items.

11. Placement tests were viewed as significantly less important than other aspects of the openness theme for both VECDS and CC. CC administrators rated the importance of waiver examinations as significantly higher than did the VECDS.

12. Responses to negative items tended to be "not important." VECDS did not differ significantly within on negative items. Within the CC sample, administrators rated "career education programs only for vocational-technical students" significantly lower than the other items. VECDS rated "a specific unit or course about careers" significantly lower than did CC administrators, although both perceived it rather negatively.

13. Factors used in the study were contaminated, since the career education themes loaded on the same factors. Only a small percentage (32% and 33%) of the variance was explained by the factors.

14. Correlations were run on background and career education items with the significant correlations by themes and predominant items described as follows:

THEMES	VECDS	CC
Background	(Background)	(Background -- position)
Goal-orientation	(Background)	(Background)
*Infusion	Infusion -- self awareness -- self awareness	Articulation -- use of bus & individual facilities
Community Communication	Infusion -- self assessment info. & Occup. exposure counseling	Articulation -- interinstit. articulation
Professional Growth	Infusion -- infuse careers curr. (Comm Com)	(Background & articulation)
Openness	Infusion -- self-assessment decision making communication with bus, individual, private schools, colleges	Background -- total time in present position

*Strong correlations - very high; imply consensus
( ) - moderate correlation

Limitations

Interpretation of any scale which depends on a subjective judgment is a limitation even if significant differences between sample groups is established, determination of the theoretical or practical meaning of the difference is difficult. (Isaac and Michael, 1972)

Findings in the present study may be a result of the bipolar adjective pairs and/or the career education themes which were selected. External and internal extraneous variables may have contributed to spurious results. No baseline data is available so that comparisons could have been made.

Reactive measures are those in which the subject is directly involved in the study and reacts to the measurement process itself. The result can introduce changes into the research situation. One such change is the "guinea pig effect." The subject feels like a guinea pig and as a result either feels he must do his very best or feels antagonistic. Role selection is another change which may occur. In this case the subject assumes the role of "the kind of person he thinks he should be." (Isaac and Michael, 1972)

The measurement itself may act as a change agent. The situation is referred to as the "Preamble Effect" by Cantril (1944). The instructions or contents of the questionnaire induce certain attitudes or mind sets in the subject which extend beyond the research

situation. The research situation starts the opinion-forming process into action. The investigator believes that the "preamble effect" was working in the present study based on the fact that numerous respondents remarked that the questionnaire contained good ideas on how to define career education. Interviews with respondents after they completed the questionnaire confirmed the "preamble effect" observation.

The tendency for respondents to answer questions in certain predictable ways is referred to as a response set. The present questionnaire was designed to eliminate response sets although some may have occurred. The semantic differential scales alternated as positive and negative and several negative items were included in the Likert-type scale. The negative items were meant to "wake-up" any respondent who was lapsing into a response set.

The negative semantic differential items were transposed positively during coding. The negative Likert-type items were computed separately when the statistical analysis was performed.

In the cases where biased response sets did occur, three primary rating errors could have occurred. One is an over-rater error where the response is unfavorable. A third is a central tendency where ratings tend to be in the middle of the scale. The middle-scale ratings tend to occur according to Isaac and Michael (1972) when the observer is unfamiliar with what is being rated.

The investigator's observations during the present study indicated that the central tendency rater error may have affected the responses on the semantic differential. The reason in the cases where the middle ratings occurred appeared to be unfamiliarity with the scale. Several respondents with vocational education backgrounds remarked that they had difficulty in conceptualizing the semantic differential items. They assumed that their "academic" counterparts were better at responding to such a scale.

Interviewer effects are another limitation. The interviewer (the investigator) was the same in all situations. Therefore, many interviewer biases were held constant. The questionnaire was objective so that any investigator bias which appeared would only be due to the investigator's selection of questions or interpretations of data.

The research instrument remained constant, but elicited responses may have been different because of the time lapse in gathering data. The period during which data was gathered extended three weeks because of scheduling at community colleges.

Still another limitation to the study may have been the "halo effect." The "halo effect" is the situation where some irrelevant feature of the study, such as a stong initial positive or negative impression, influences ratings on all subsequent observations. In situations, such as in the present study, where the variable being rated is vaguely defined, the halo effect is stronger. Because of the unclear understanding which seems

to exist regarding the career education concept, it would be plausible that the halo effect may have been strong in the current study.

Because of the numerous limitations mentioned above, multiple measures (i.e., semantic differential and Likert-type) of the career education concept were used. Use of multiple measures should enable a greater degree of generalizability. The validity check among categories was performed to determine appropriateness of the categories.

Since the investigator of this study was the only person coding the responses, coder reliability was held relatively constant. Category stability was determined by the pre-test. To ascertain interpretive reliability independent individuals were asked to interpret results. The interpretations given approximated those which appeared in Chapter V.

Verification of the questionnaire was obtained by means of personal interview. Selected officials at the Michigan Department of Education and one administrator at each of the community colleges in the sample were asked if they felt the instrument was measuring what was intended. The questionnaire had been previously changed according to reports during pretesting until there was verification of meaning.

A larger CC sample size may have yielded more significant findings.

Conclusions and Implications

The present study was exploratory in nature and focused on description of existing conditions between samples. So even though results of the study generally do not demonstrate large difference between the VECDS and CC administrators samples, conclusions describing the samples can be drawn.

1. The affective descriptive meaning of the term, "career education," was virtually the same for both samples. VECDS personnel and CC administrators perceive career education as just right of center in potency, activity, and evaluative factors. The finding implies that State officials and community college administrators experience a similar effective reaction to the term, "career education."

2. Overall analysis of responses to an a priori definition of critical elements of career education as defined by a panel of experts indicate that the State officials and community college administrators do not differ in how they cognitively describe career education. The few specific differences which do exist were presented in the results.

3. A computer validity check determined that the questionnaire was able to discriminate on selected items and, thereby, implies that the two samples actually do not significantly differ in their respective description of career education concept.

4. The original factors of the questionnaire were contaminated. Items did not clearly differentiate the factors. Factor analysis for the VECDS indicated that underlying factors may be "self-development information," "previous experience," and "job preparation." The CC sample seems to indicate that "information gathering" and "sharing" may be the underlying factors affecting community college administrators. The factors should be pursued in more detail to determine if they are the real factors which determine response to definition of career education in programmatic element terms.

5. State officials correlate highly within on the infusion theme while community college administrators show high correlations within on the articulation theme. Self-assessment appears to correlate most often with other items for the VECDS.

6. The small size of the check sample (N=5) prohibits generalization although the check sample tends to indicate that conclusions from findings may be generalized to the populations.

Since the investigator found that the questionnaire did discriminate on items, one can say that conclusions from results point to the fact that state officials and community college administrators on the whole do not differ from each other in

describing career education in the community college setting. Of course, the statement assumes that the paper-and-pencil measure truly states what the respondents really think. Results also contradict the literature's assertion that much confusion exists concerning the meaning of the career education concept.

Factor analysis indicated that the six career education themes were not the actual factors which affected responses to the questionnaire. The discovered factors: self-development information, previous experience, job preparation, information gathering and sharing tend to suggest that propensity to transmit information may be the real underlying factors which determine descriptions of career education.

The reason for state officials' responses correlating predominantly with the infusion they may be due to their primarily secondary education level work experience. Infusion is a concept which is generally stressed in elementary and secondary education where specialization is less emphasized. In well-conceived career education programs, students explore career lattices to get an "across-the-board" picture.

On the other hand, community college programs and particularly students tend to emphasize specialized areas. Students focus on career ladders, rather than an entire lattice. Therefore, the

community college administrators reflect the specialization approach in their preoccupation with articulation in the present study. The infusion theme would be much more difficult to handle because of the very structure of the community college setting.

Generally, high consensus of responses among community college administrators suggests a possible "party line" which did not appear among state officials. This is probably due to the fact that the college administrators usually receive information con concerning career education after it becomes state or U.S.O.E. official policy. On the other hand, state officials are forging the definition of career education at the foremost perimeter and therefore, hold divergent points of view concerning it. The greater amount of information concerning career education to which the state department has access exposes officials to many different viewpoints. Community college people often must wait for the information to trickle through the state department where the "gatekeeper effect" takes place.

Reflections

The purpose of this section is to reflect on the findings of the study by means of inviting from the raw data (Appendix III).

Both samples seem to equate the career education concept with: (1) lifelong education; (2) the use of business and industry resource persons; and (3) the determination of goals and priorities. Distributions for both samples were most negative for the items

which suggested that: (1) responsibility for career education programs (should be) under administration of vocational education; (2) career education programs (should) be offered only to vocational education students; and (3) that a specific course, or single unit, about career education (should) be included in the curriculum.

Fairly even distributions ranging from the negative to the positive end of the scale were assumed to denote items which comprised an issue. Lack of consensus seems most prevalent on the following issues:

a. Whether the career education concept is:
   strong or weak
   vibrant or still
   heavy or light

b. Sharing of staff with other educational institutions

c. Use of non-degreed teachers to teach college courses

d. Guarantee of job placement by the community college for its students (this item is an issue for the CC sample but was scored as very important by the VECDS sample)

e. Guarantee by the college of placement of two-year students into higher education

f. Faculty responsibility for placement of their own students

g. Involvement of teacher unions in the development of career education programs

h. Involvement of labor unions in the development of career education programs

In addition to the issues which appeared from the data, the investigator used her intuition during the study. Based on intuition, the investigator feels that respondents tended

to favor the concept of career education. Both samples expressed many of the same concerns and fears about each other. The concerns and fears included such things as, "they (referring to the other sample) are not aware of what we are doing in career education" and "they (again, the other sample respondents) are not truly aware of the real meaning of career education."

The investigator was surprised to find the apparent degree of knowledge about career education which exists among community college administrators. The reason, in part, may be due to her state department bias that the "people-in-the-field" do not know much about career education except what the state department tells them. In fact, after the present study, the investigator feels that people-in-the-field in community college administrative levels know as much or more about the meaning of the career education concept and its practical application than do many of the state department personnel.

In further reflection, the investigator believes that the a priori definition of career education upon which she based her questionnaire may have stimulated the respondents thinking in that direction. Even though the research design is statistically sound, the investigator regrets that the sample size for community colleges was not greater. The use of

statistical techniques, unfortunately, sometimes tends to obscure ramifications of the data. The investigator hopes that this section about reflections has helped to bring out some of those ramifications.

Suggestions for Further Research

Based on the comparative analysis of data in the present study, the following hypotheses were generated as possible directions for future research: (stated as null hypotheses)

1. There is no significant difference between state officials and community college administrators in the description of career education in the community college setting.

2. Affective meaning which state officials have for the term, "career education," as measured by a semantic differential scale is not significantly different from the affective meaning held by community college administrators.

3. There is no significant difference between state officials and community college administrators with regard to responses to an a priori definition of critical elements of career education as defined by a panel of experts.

4. State officials do not correlate significantly higher on the infusion theme than do community college administrators.

5. Community college administrators do not correlate significantly higher on the articulation theme than do state officials.

6. There is no significant difference between state officials and community college administrators in terms of:

    a. Background
    b. Self-development information
    c. Previous experience
    d. Job preparation
    e. Information - gathering
    f. Sharing

7. There will be no significant differences in description of career education persons with the same degree of ability to obtain and transmit information.

Studies in the future may wish to consider use of the measure of ordinal consensus (Leik, 1966). The method helps eliminate some of the ambiguity in the term "consensus," by describing the distribution. The structure of the distribution is more precisely defined by the measure, so that such things as polarization and modality of the structure may be identified.

In addition to corroborative research, interpretation of the present study suggests that research concerning the communication patterns between the VECDS personnel and CC administrators is necessary. Research of the communication patters would possibly identify why problems tend to exist between VECDS and the CC's when the present study has shown that both are speaking the sample language with regard to the definition of career education.

Communication research could focus on the identification of communication breakdown points. Such research would trace the various tupes of communication which are utilized between the VECDS and CC. The types could include both the formal and informal channels; who communicates with whom; for what purpose; what media are used; for what purposes; channel efficiency; direction of the communication; and amount of distortion of the message. When breakdown points are identified, measures can be taken to remedy them.

The level of knowledge, or amount of information a person has regarding the career education concept may also affect his attitude and support of the concept. The area of communication concerned with quantity and quality of information could be investigated in this respect.

Another aspect of communication which may yield interesting results is that of information gathering. The investigator cannot prove in the present study that information gathering is a strong factor in determining the extent to which VECDS and CC agree on the definition of career education. She does, however, intuitively believe that a respondent's ability to elicit and transmit information will affect how he defines career education. The investigator also believes that the higher the information transmission level of the respondent, the more positive the respondent's attitude will be toward career education.

APPENDIX I
STRATIFICATIONS

Stratifications of the samples were based on the Michigan Department of Education's 1972-73 Directory of Institutions of Higher Education, Section 2: Public Community Colleges, pp. 10-14. According to the Directory, the ratio of large (over 5,000) to medium (between 1,000 and 5,000) to small (less than 1,000) colleges by enrollments is 1: 3: 2. Colleges were also stratified in terms of urban-nonurban service areas as identified by the Michigan Department of Education. The ratio for urban (U) to nonurban (N) colleges is 2:1. Below are the figures for the sample when stratification ratios were applied:

Community College	Enrollments	Service Area
Genesee	11,951	U
Washtenaw	4,024	U
Jackson	3,515	U
Kellogg	3,314	U
Mid-Michigan	701	N
Montcalm	665	N

APPENDIX II

CAREER EDUCATION IN THE
COMMUNITY COLLEGE

Column Numbers

1 — Place of Employment:

1 = Kellogg Community College
2 = Montcalm Community College
3 = Mid Michigan Community College
4 = Flint Community College
5 = Washtenaw Community College
6 = Jackson Community College
7 = Michigan Department of Education
8 = Grand Rapids Junior College

2 & 3 — Position:

01 = Community College President/ Vice President
02 = Community College Academic Dean
03 = Community College Occupational Dean
04 = Community College Student Services Dean
05 = Community College Business Manager
06 = Community College Other
09-16 = Civil Service Level

4 — Recency of university course attendance as a full or part-time student:

1 = within last 6 months
2 = 6 months to 1 year ago
3 = 1 to 2 years ago
4 = more than 2 years ago

5 — Highest degree & predominant field of study:

1 = B.A. - academic
2 = B.A. - vocational
3 = M.A. - academic
4 = M.A. - vocational
5 = Specialist - academic
6 = Specialist - vocational
7 = Ph. D. - academic
8 = Ph. D. = vocational
9 = Other

(6-18)

Previous Experience:

1 = None
2 = Less than 6 months
3 = 6 months to one year
4 = 1 year
5 = 2 - 3 years
6 = 4 - 6 years
7 = 7 - 10 years
8 = 11 - 15 years
9 = more than 15 years

6. Total amount of time in your present position:

7. Total time as a teacher and/or administrator at the high school level:

8. Total time in a community-junior college (faculty and/or administration):

9. Total time as faculty and/or administration at a four-year college or university:

10. Total work-experience in education at the state level:

11. Total work experience outside the educational field in business and industry:

12. Total training time as a member of a bargaining unit (union):

13. Total training time at the managerial level outside education:

14. Total training time in a factory (on-the-line):

15. Total training time in a clerical situation:

16. Total training time in the military:

17. Total work experience as government employee:

18. Total time self-employed:

(19-30) Semantic Differential:

1 - 7 for each one
Potency: sum columns 19, 22, 25, 28
Activity: sum columns 20, 23, 26, 29
Evaluation: sum columns 21, 24, 27, 30

19. strong - weak
20. still - vibrant
21. pleasant - unpleasant
22. light - heavy
23. passive - active
24. good - bad
25. sad - happy
26. modern - old-fashioned
27. tasteful - distasteful
28. masculin - feminine
29. fresh - stale
30. worthless - valuable

(31-80) Career education program elements importance. Responses for columns 31-80:

1 = Not important at all
2 = Not very important
3 = Important
4 = Very important

31. Overall missions of the college.

32. Goals and performance objectives written for both academic and occupational programs.

33. Determination of priorities of goals and objectives.

34. Identification of a key person(s) in the community college to serve as a liaison with the State Department of Education with regard to career education programs.

35. Cooperative planning of the community college with a Career Education Planning District (CEPD).

36. Inter-institutional articulation with other colleges and schools.

37. Joint use of facilities with high schools and other colleges.

38. Use of facilities operated by business and industry.

39. Sharing of staff members with other educational institutions.

40. Use of persons from business and industry as instructors.

41. Joint use of advisory committees with local high schools and other colleges.

42. Persons from business and industry used as resource people.

43. Utilization of persons without college degrees to teach college courses.

44. Relating course work in academic subjects as well as vocational-technical subjects to careers.

45. Infusion, or integration, of an approach which bases the entire college curriculum offering (including academic subjects, such as English) on careers.

46. A specific unit or course about careers to be offered by the college, rather than having the total curriculum focus on careers.

47. Testing to determine student abilities and interests.

48. Activities designed to assist students in developing awareness of their own self-concepts, interests, and abilities.

49. Assistance to students in developing self-assessment skills.

50. Information and occupational exposure to expand the student's knowledge and exploration of careers.

51. On-the-job training for students.

52. Activities to develop the student's decision-making skills in planning a career.

53. Integration of academic, vocational, and technical program components of career preparation.

54. Vocational guidance services with formal organization of information for student use.

55. Individual counseling of students.

56. Systematic involvement of faculty outside guidance services and community members in the offering of guidance services.

57. Testing service available to students who wish to use it for their own interest.

58. All students declare an educational or career objective and rationale with periodic review and update.

59. Job placement guaranteed by the college for students who desire it.

60. Placement into higher education guaranteed by the college for those who successfully complete a two-year program.

61. Permanent, full-time staff assigned to placement services.

62. Faculty members place their own students.

63. Systematic follow-up of students to be conducted by the college at regular intervals.

64. Career education programs only for vocational-technical students.

65. Exchange of information about activities among departments within the community college.

66. Information exchange with the local community, business, and industry.

67. Dialogue with private schools concerning articulation of programming.

68. Communication with other colleges or universities with regard to programming.

69. Community college information exchange with the State Department of Education.

70. Ongoing involvement of teacher unions in establishing career education programs in the community college.

71. Involvement of labor unions on an ongoing basis to establish career education programs in the community college.

72. In-service training of staff members on a regular basis.

73. Pre-service training of all faculty in "career education."

74. Regular intervals of work experience outside of education required of faculty.

75. Attendance to conferences, workshops, and conventions regarding "career education."

76. Responsibility for career education programs to come under vocational-technical programs.

77. Ability to transfer to other educational institutions without loss of credits.

78. Opportunity to enter, leave, and re-enter the college at any time in life.

79. Placement tests for new or re-entering students.

80. Waiver examinations for advanced placement of students.

APPENDIX III
RAW QUESTIONNAIRE DATA

2., 3.	VECDS	$\frac{9}{1}$	$\frac{10}{0}$	$\frac{11}{4}$	$\frac{12}{0}$	$\frac{13}{13}$	$\frac{14}{2}$	$\frac{15}{7}$	$\frac{16}{3}$	
	CC	$\frac{1}{10}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{4}{3}$	$\frac{5}{2}$	$\frac{7}{7}$	$\frac{7}{0}$	$\frac{8}{0}$	
		1	2	3	4	5	6	7	8	9
4.	VECDS	7	4	5	14					
	CC	4	3	10	13					
5.	VECDS	0	0	2	20	1	2	1	4	0
	CC	0	1	7	7	1	1	4	5	3
6.	VECDS	1	5	1	11	6	4	1	1	0
	CC	0	0	1	12	7	10	0	0	0
7.	VECDS	4	2	0	2	3	7	7	3	2
	CC	6	0	0	2	6	6	4	4	2
8.	VECDS	24	0	0	1	2	2	1	0	0
	CC	0	0	0	0	6	3	12	7	2
9.	VECDS	22	0	1	2	2	1	1	0	1
	CC	16	0	1	5	2	4	0	2	0
10.	VECDS	0	0	3	1	4	9	7	2	4
	CC	27	0	0	1	1	0	0	0	1

		1	2	3	4	5	6	7	8	9
11.	VECDS	3	1	0	0	13	9	4	0	0
	CC	3	0	1	1	7	9	7	2	0
12.	VECDS	22	2	4	0	1	1	0	0	0
	CC	25	0	1	2	1	0	1	0	0
13.	VECDS	19	1	3	1	6	0	0	0	0
	CC	17	0	1	2	5	2	1	1	1
14.	VECDS	16	3	1	3	6	0	1	0	0
	CC	16	2	3	1	4	4	0	0	0
15.	VECDS	21	4	1	2	2	0	0	0	0
	CC	23	0	1	2	4	0	0	0	0
16.	VECDS	21	0	0	3	5	1	0	0	0
	CC	8	0	2	3	12	5	0	0	0
17.	VECDS	3	0	2	0	5	5	7	4	4
	CC	23	0	1	2	2	0	0	1	1
18.	VECDS	22	1	3	1	1	0	1	0	1
	CC	18	1	3	3	4	1	0	0	0
19.	VECDS	1	2	1	5	5	8	8	0	0
	CC	1	2	2	6	3	9	7	0	0
20.	VECDS	1	1	2	5	5	5	11	0	0
	CC	0	2	1	5	7	10	5	0	0

		1	2	3	4	5	6	7	8	9
21.	VECDS	0	0	0	5	5	13	7	0	0
	CC	0	0	0	0	5	14	11	0	0
22.	VECDS	0	3	4	13	2	5	3	0	0
	CC	1	2	3	12	5	5	2	0	0
23.	VECDS	1	1	0	3	4	8	13	0	0
	CC	0	2	0	3	1	11	13	0	0
24.	VECDS	0	0	0	2	2	5	21	0	0
	CC	0	0	0	0	2	9	19	0	0
25.	VECDS	0	0	0	11	3	7	9	0	0
	CC	0	0	0	9	3	8	10	0	0
26.	VECDS	0	0	1	2	2	8	17	0	0
	CC	0	0	1	6	5	8	10	0	0
27.	VECDS	11	8	4	7	0	0	0	0	0
	CC	10	11	4	5	0	0	0	0	0
28.	VECDS	0	0	0	28	1	0	1	0	0
	CC	0	0	1	25	1	3	0	0	0
29.	VECDS	0	0	0	4	4	9	13		
	CC	0	0	0	2	5	15	8		
30.	VECDS	0	0	0	0	2	5	23		
	CC	0	0	0	1	0	6	23		

		1	2	3	4
31.	VECDS	0	0	10	20
	CC	0	0	4	26
32.	VECDS	0	2	4	24
	CC	0	0	7	23
33.	VECDS	0	0	6	24
	CC	0	0	6	24
34.	VECDS	0	3	12	15
	CC	2	3	9	16
35.	VECDS	0	1	12	17
	CC	1	6	7	16
36.	VECDS	0	0	10	20
	CC	0	1	13	16
37.	VECDS	0	1	17	12
	CC	1	1	11	17
38.	VECDS	1	1	19	9
	CC	0	3	14	13
39.	VECDS	1	7	15	7
	CC	3	6	12	9
40.	VECDS	0	0	12	18
	CC	0	0	11	19

		1	2	3	4
41.	VECDS	1	2	11	15
	CC	2	3	15	10
42.	VECDS	0	0	5	25
	CC	0	0	5	25
43.	VECDS	1	8	14	7
	CC	1	6	13	9
44.	VECDS	0	0	10	20
	CC	1	1	11	16
45.	VECDS	0	2	14	13
	CC	3	4	11	11
46.	VECDS	13	11	4	2
	CC	6	11	11	2
47.	VECDS	1	2	10	17
	CC	1	1	12	15
48.	VECDS	0	1	6	23
	CC	0	0	6	24
49.	VECDS	0	1	5	24
	CC	0	1	6	23
50.	VECDS	0	1	6	23
	CC	0	0	9	21
51.	VECDS	0	1	10	19
	CC	0	1	9	20

		1	2	3	4
52.	VECDS	0	1	6	23
	CC	0	2	8	20
53.	VECDS	0	0	5	25
	CC	0	2	9	19
54.	VECDS	0	0	9	21
	CC	1	0	8	21
55.	VECDS	0	0	11	19
	CC	1	1	2	26
56.	VECDS	0	3	12	15
	CC	0	0	12	18
57.	VECDS	1	3	12	14
	CC	0	3	10	17
58.	VECDS	1	2	13	14
	CC	1	5	15	9
59.	VECDS	1	0	12	17
	CC	5	5	9	10
60.	VECDS	1	3	11	15
	CC	3	5	11	9
61.	VECDS	0	1	6	23
	CC	0	2	6	22
62.	VECDS	3	4	19	2
	CC	3	11	15	1

		1	2	3	4
63.	VECDS	0	2	5	23
	CC	1	0	6	23
64.	VECDS	15	7	2	4
	CC	15	13	0	1
65.	VECDS	0	2	10	18
	CC	1	0	10	19
66.	VECDS	0	1	11	18
	CC	0	0	5	25
67.	VECDS	1	3	12	14
	CC	1	5	13	11
68.	VECDS	0	1	14	15
	CC	0	0	12	18
69.	VECDS	1	1	11	16
	CC	1	0	14	15
70.	VECDS	4	3	15	8
	CC	4	8	7	11
71.	VECDS	2	3	15	10
	CC	2	6	6	16
72.	VECDS	1	1	5	23
	CC	0	1	8	21
73.	VECDS	1	1	7	21
	CC	0	2	10	18

		1	2	3	4
74.	VECDS	0	1	14	15
	CC	0	4	20	6
75.	VECDS	0	3	20	7
	CC	1	1	17	11
76.	VECDS	14	7	6	2
	CC	10	10	6	4
77.	VECDS	1	2	5	22
	CC	0	1	9	19
78.	VECDS	0	1	1	28
	CC	0	0	1	29
79.	VECDS	2	4	10	14
	CC	1	4	9	16
80.	VECDS	1	4	10	14
	CC	0	1	7	21

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