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This study was conducted to discover whether two elementary school districts, one committed to career education and the other not committed, would show a significant difference in their response to 60 statements about career education and its practice. The study was also designed to determine to what degree students and teachers would differ in their response.

Other important objectives were to ascertain whether the integration of academic and vocational education is perceived as a viable career education method of instruction. Additional aims were discerning the characteristics which identify career education generally and career awareness specifically as well as identifying the various methodologies used for career awareness education.

A questionnaire, refined by a jury panel of career educators and two field tests, was administered to 140 sixth grade students and 12

sixth grade teachers from each district. Responses were given on a five-point Likert type of scale. The readability level was set at early fifth grade using the Fry graph. Means and standard deviations were computed for each item and the data were analyzed to test three hypotheses: H_1 There is no school effect, H_2 There is no personal effect, and H_3 There is no interaction effect. The F statistic was the basis for computing the analysis of variance. The critical significance level was set at $\alpha = .05$.

Five H_1 hypotheses were rejected, twenty H_2 hypotheses were rejected, and four H_3 hypotheses were rejected. The data showed that the career education district teachers were much more in agreement with identified career education concepts and practices than were the teachers in the non-career district. However, little congruity was indicated between all students and all teachers concerning career education concepts and practices, while considerable agreement between students was indicated. Both teacher groups showed less variability of response on their answers than did students.

The literature indicated a broad definition for career education. Career awareness is defined with more agreement. Work preparedness was presented by most career education authors as central to the career education movement. An integration of various school disciplines was seen as an essential teaching method as was the assimilation of career education into all levels of the existing

curriculum. In a total school articulation career awareness is presented as the time to become aware of the variety and value of work and the awareness of self within the knowledge of the possibilities in the world of work.

It was recommended that this or similar studies be made on the elementary, junior and senior high levels to determine to what extent the findings of this study might be duplicated. The study also points out the need for teacher training institutions to provide more extensive pre- and in-service career education instruction dealing with both the concepts and practices (methodology) of career education.

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CONCEPTS AND PRACTICES OF CAREER EDUCATION
IN TWO ELEMENTARY SCHOOL
DISTRICTS IN OREGON

I. INTRODUCTION

Background of the Problem

Sidney P. Marland (1971) has said that career education has the makings of a national movement and a movement that is absolutely essential for American education:

American schools are producing too many youngsters who qualify neither for a job nor for college. Many high school graduates go on to college only because they haven't the vaguest idea of what else to do.

Career education is designed to give every youngster a genuine choice as well as the intellectual and occupational skills necessary to back it up. Career education is not merely a substitute for "vocational education" or "general education," or "college-preparatory education." Rather, it is a blending of all three into an entirely new curriculum. The fundamental concept of career education is that all educational experiences--curriculum instruction, and counseling--should be geared to preparation for economic independence, personal fulfillment, and an appreciation for the dignity of work (p. 1).

When one examines the literature, talks to educators and laymen, and observes classroom teaching, it becomes quite obvious that career education is seen not as a "movement" that is either clearly defined or articulated, but as a collection of concepts and practices which have as their objective career orientation and preparation.

This study is one piece of evidence to further clarify what career education is and may be and how two groups of students and teachers view some of the concepts and practices of career education. The author could find no study which examines whether a commitment to and practice of stated career goals and more specific objectives of career education are changing the attitudes, understandings, and skills of students and teachers and bringing the myriad of career education concepts and practices into sharper focus within a national and local articulation or within a total school pattern of presentation.

Purpose of the Study

This study was done to discern whether differences existed between two elementary school districts which have been identified by career education specialists in Oregon as (1) having a strong commitment to and executing career or careers education and (2) having not yet made a commitment to or practicing of career(s) education. The differences, where they existed, were discerned in philosophy, methods, materials, and outcomes or consequences of the school program as perceived by the respondents.

Objectives

This study was designed to reach the following objectives:

1. to determine whether the integration of academic and vocational education is perceived in the literature as a method of instruction for career education.
2. to design a survey instrument from an examination of the literature.
3. to present the statistical data to answer whether school district commitment to career education and its practice effects a different response than that given by sixth grade students and teachers from a non-committed district.
4. to discover from the literature the various materials and methods used in career awareness education.
5. to work toward a definition of career education and career awareness, given the literature.

Procedure

The procedure used in this study was to examine the literature, construct a questionnaire, and secure statistically analyzed data from which to draw conclusions and make recommendations.

The questionnaire presented 60 statements which were formulated from career education and career awareness literature. In order to insure maximum readability of the questionnaire at the sixth

grade level, the Fry (1972) formula was applied, and the reading level was determined to be between the fourth and fifth grade.

To refine the questionnaire, a panel of five experts was chosen, and each of the five subsequently offered suggestions for improving the questionnaire technique, the instructions, and the statements. The instrument was field-tested in two elementary school districts and modified from that feedback.

After this pre-test two test districts were finally selected according to recommendations by career educators, a study of local career education literature, the similarity of the populations, the proximity of each to an industrial area, and the dissimilarity of commitment to and practice of career education. District one, Hillsboro, Oregon, had not yet made a commitment to career education, as had district two, Springfield, Oregon.

The instrument was given to 140 sixth grade students and 12 sixth grade teachers in each district. Means and standard deviations were computed for each questionnaire item and the F statistic was used to compute the analysis of variance in order to discern differences in the concepts and practices between teachers and students in each district, and between teachers in district one and two and between students in district one and two.

Rationale for the Study

Given the national attention to career education, or those concepts and practices which characterize what is broadly called career education, it becomes increasingly a challenge to determine if the application of those concepts seems to bring students closer to the objectives of career education, particularly on the elementary level which Super (1953), Zaccaria (1970), Luchins (1960), and Herr (1972) say is a critical time for later psychological and career development. The adolescent is susceptible to the life around him. His awareness and subsequent vocational preparation is sensitive to a myriad of experiences. Parents' occupations, self-concept, experience, the battle between social pressures and reality, and outlets for abilities all play a significant part in the vocational development of each person. The literature which supports the legitimacy of beginning a career awareness program in elementary school will be presented in Chapter II.

That career education has a broad focus is understood. Moore (1972) says:

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.

It seems unnecessary to say that before any career program of merit can be evolved and sustained, the program and its objectives must be precise and explicit (p. 4-5).

Others do find specific career education objectives, practices, and patterns of articulation which most often seem to lead toward job preparedness. Linson, Wilson and Hunt (1971) identify two articulations: vertical articulation which is moving from one grade to another through the program goals and lateral articulation which combines all studies K-10 to assure the students' and society's needs are met. The authors present the following pattern of the vocational curriculum for vertical articulation:

K-6 Study of the world of work

7-10 Exploration and prevocational study with some hands-on experience

11-14 Specific vocational training for employment (p. 29)

Most conceptualizations of career education place the economic function as the pivotal one in a person's life. However, there are those who support wider objectives for all of career education, namely preparing students for a variety of life roles, for self-directed decision-making, and/or for individualized student goal achievement. The method most often employed is the integration of curriculum by using materials and teaching methods designed to help students achieve career education goals. Chapter II will examine these approaches in detail.

Implementation problems exist, in many cases, because of the lack of articulation. Linson et al., however, are not sure such an

articulated system of career education can be superimposed over the existing well-articulated academic education. They ask:

Can an articulated system of vocational education co-exist peacefully, or at least, successfully with the articulated system of academic education which already exists?

A lack of articulation has posed other problems for vocational education. Our secondary and post high schools have usually existed as separate entities (p. 29-30).

Vertical articulation (moving from one grade level to another up the educational ladder) is important to the student and society. Combining subjects (lateral articulation) into one curriculum which better serves the society and the student is considered essential. Another focal point, say the authors, for both these articulations is career preparation for employment or an economic focus for all educational endeavors.

Marland (1972a) has found a relationship between the vocational and the academic for the development of career competencies. He suggests each of us must change our attitudes by purging ourselves of academic specialization which separates:

For education's most serious failing is its self-induced, voluntary fragmentation, the strong tendency of education's several parts to separate from one another, to divide the entire enterprise against itself (p. 35).

The worst of the dichotomies for Marland is the artificial separation of the "academic" and the "vocational."

If we are to appraise the success or lack of success of career education on the K-6 level, we must carefully assess the specific ways in which career education articulation has not been implemented, either by those who support and practice career education and by those who are uncommitted.

Marland (1972b) admonishes educators not to dismiss career education because it may be simply stated:

But because a proposition is simple, almost to the point of being taken for granted by society, it does not mean that it is not profound. Most profound ideas in our civilization can be fairly simply stated. In our urgent concern over education's success or failure, we tend to over-simplify the profound meanings of our goals and our measures. Elementary and secondary education is a field marked by hard-working, dedicated individuals who are currently undertaking serious self-examination in an effort to discover how closely their work approaches the real national needs and the individual needs of students (p. 34).

Serious examination of career education will undoubtedly be done in hundreds of studies, the author's being but one in an area, as yet, less studied than junior high, senior high, or community college education areas.

The beginning point for career education must always be an understanding and orientation to career education objectives.

TenPas (1973) asks: "Can we identify the level of agreement in the concepts of career education as stated by by leaders in the movement?" The author suggests that the concepts of career education

provide a focus for synthesizing disciplines which before have seemed to be disparate courses of study.

Marland (1972b) says that the majority of students in elementary and secondary education are not being reached. For those usually motivated, self-disciplined students in either vocational-technical or college preparation there is goal orientation and "we are fairly successful." For those in general education who are not preparing for a specific job or college the most severe failure is found:

The general curriculum, which engages the largest number of our students and which returns the worst record of failure, lacks the clear purpose which marks the other two areas of reasonable success (p. 35).

General education for Marland is that schooling which is not geared toward a job or college. It is that education for which there is no articulation.

For most career education writers the major goal of career education is job preparation, yet other educators see a wider range of career or careers preparation. For example, Goldhammer and Taylor (1972) say:

Career education introduces a new polarity and sense of purpose into education. Some view it as the new paradigm for education, focusing on career development. Career education considers curriculum to be systematic-- an integrated and cumulative series of experiences designed to help each student achieve (1) increased power to make relevant decisions about his life, and (2) increased skill in the performance of his life roles (p. 6).

However, the authors pinpoint the dilemma of choosing a career education definition (or articulation):

Probably the most accurate and honest statement to be made at this time is that career education remains to be precisely defined. The career education movement does not have a universally accepted definition (p. 5).

For Goldhammer (1972) the wider approach of five major life preparations is essential in order that students reach their potential and are prepared for adult life. Students must be oriented toward economic responsibility, family duties, a community participant function, and an avocational role. A fifth career is suggested--the aesthetic, religious, and moral life. Consequently, Goldhammer perceives five life roles for which the schools must prepare the student, given that each student has his own unique potential. Careers, not career, is the author's term.

There is room to examine, then, whether those directly involved in the school share common understandings and purpose about the major concepts of career education.

The Educational Index (1972) lists career education under vocational education. Numerous career educators see the vocational as supportive of career education; that is, vocational and academic education serving the student's career or careers goals.

The literature shows a plethora of concepts and practices of career awareness and a host of articulated patterns. However, an

education related to realistic life goals stated mostly in terms of economic preparedness seems to be gaining acceptance among educators and citizens across the country.

A succinct statement of need for such a study as this one was expressed by Gardner (1973):

Articulation within levels and between grade levels is seen as a fundamental need in all school districts and universities currently engaged in curriculum development within career education. This articulation is contingent, of course, upon some common understanding as to what career education encompasses and what its objectives for learners at all levels are.

Additionally, there is no empirical data to indicate that there is or is not any difference in learner outcomes in districts which have committed themselves to career education program development and those districts who have not identified career education as a priority curricular concern.(p. 1).

Moore (1972) also emphasizes the need for career education articulation by calling for precise and explicit program objectives:

It seems unnecessary to say that before any career program of merit can be evolved and sustained, the program and its objectives must be precise and explicit. Unlike secondary and post-secondary programs designed to prepare the four-year college bound student who only knows that he will enroll in a liberal arts program, educational experiences for the student who hopes to terminate his education in one or two years or less, with a salable skill, requires more direction (p. 5).

Definition of Terms

Academic Education--Education in the arts and sciences stresses theoretical and/or aesthetic rather than practical applicability.

Articulation--Putman and Chismore (1970):

The manner in which classroom instruction, curricular activities and instructional services to the school system are interrelated and interdependent, the aim being to facilitate the continuous and efficient education program of the pupils (e.g. from one grade to the next; from elementary to secondary school; and from secondary school to college), to interrelate various areas of the curriculum (e.g. Fine Arts and Language Arts), and/or to interrelate the school's instructional program with the program of out-of-school educational institutions (e.g. the home, church, youth groups and welfare agencies) (p. 75).

Career--An occupation for which one undertakes special training and in which one is engaged as a life work.

Career Education--A means of committing education to the eventual economic role each of us must play and to the values of a work-oriented society and orienting all curriculums toward this goal.

Careers Education--Expands the one-dimensional economic life role orientation of career education to several life preparations or roles. Five which appear to be most often cited are the economic, citizen, avocation, family, and aesthetic.

Integration--A combining of school subjects, disciplines and resources to achieve objectives without destroying the integrity of the various components.

Life Role--A socially expected or customary part or parts each performs throughout life. There is flexibility within the roles as they are modified by the individual personality, aspirations, and interpretations, but conformity is a greater force than non-conformity. In our society the expected norm for living out one's life is attached to a vocational or economic role, a social role, a citizenship role, an avocational role, and an ethical role.

Occupation--That regular activity which is usually considered one's work or method of gaining a living.

Outcome--The perceived consequence of an educational objective or program.

Vocational Education--That preparation which gives job entry-level skills, knowledge, and attitudes. Vocational education is one part of career education and in that articulation generally works with the rest of the school curriculum to fulfill student needs in terms of the economic life role.

The need to identify agreement within and between districts as to what career education is, how career education may be taught, and what attitudes are expressed by students and teachers, seems evident. In other words, does career education make a difference and to what degree: Marianne Moore in her poem "Poetry" has said ". . . that we do not admire what we cannot understand" and what we don't examine we can't understand.

II. RELATED LITERATURE

A great deal is being said about career education, particularly in vocational education publications. Most of the literature either attempts to identify career education or describe how it is being done or both. This chapter is organized into the following four categories, plus a brief summary section:

1. characteristics and concepts which permeate and define career education.
2. patterns of articulation and the place of elementary school career education within that articulation.
3. characteristics of career awareness.
4. methodology of career education presentation and student, parent, and community involvement. (Articulation may be seen as method as well as organization.)

Defining Career Education

As touched upon briefly in Chapter I, educators are not often willing to say that they are defining career education. For example, because he feels that "career education" is only a label for evolving elusive concepts, Swanson (1972) offers no definition of career education. He does say that the concept can be described and "perhaps defined by discussing the various approaches to it." He further

specifies by saying that ". . . career education is not synonymous with education; it is a special kind of education which affords parity of esteem to the values of work."

Worthington (1973) says the U. S. Office of Education is responding to the need of redirecting our educational system to face the reality that 80 percent of the work to be done does not take a bachelor's degree as a qualification. To further the basic career education concepts that all education and counseling should prepare each individual "for a life of economic independence, personal fulfillment, and an appreciation for the dignity of work," the Office of Education has added organizational and conceptual definitions of its own. Basically, the program is three-dimensional. The first dimension is an articulated educational program which progresses through five chronological segments or levels. These levels often overlap and are not always distinct:

The first is the level of career awareness from kindergarten through the sixth grade. The second is occupational information and career exploration ranging from grades seven through nine. The third is job placement and specialized career education extending from the tenth through twelfth or fourteenth year of schooling. The fourth is specific occupational preparation at the post-secondary level. And the fifth level is adult and continuing education (p. 19-20).

A second-dimension of career education is that of grouping all the various careers into fifteen occupational clusters including agriculture, business, business and office, health, public service, environment,

communications and media, hospitality and recreation, fine arts and humanities, manufacturing, marketing and distribution, marine science, personal services, construction, transportation, and consumer and homemaking education.

The third career education dimension of the U. S. Office of Education is the four research models which are designed to help schools, employers, and others work out their own programs as they adapt the concepts of career education to their own geographic and specific career needs. The four models use four approaches to education: the School-Based Model, the Employer-Based Model, the Home-Community Model, and the Rural-Residential Model.

Worthington suggests that "career education is not a specific program. It is more usefully thought of as a goal--and one that we can pursue by many methods." Career education will give the student the ability to make personal and occupational decisions, to recognize the expanding occupational opportunities available, to acquire occupational skills, and by bringing personal and occupational aspirations into a partnership with his schooling, to reach career objectives.

In giving a rationale for career education, Evans and McCloskey (1973) also give five related parts which identify career education and define it obliquely:

. . . need for practice in career decision-making, motivation for learning the material in the school curriculum,

the importance of work to society, the changing needs for workers, and the need for preparation for work (p. 6).

Several authors and educators emphasize the life roles or role development as the major function of career or careers education. As mentioned previously, Goldhammer (1972) gives to the school the task of enabling each student to perform his life responsibility competently.

The curriculum is built to enable us to perform the several life careers that will comprise our lives. Education is the agency through which we "become a fully capacitated, self-motivating, self-fulfilled, contributing member of society."

There are four basic objectives which characterize careers curriculums: social effectiveness, economic productivity, self-realization, and moral responsibility.

The various "life careers" are:

1. A producer of goods
2. A member of a family group
3. A participant in social and political life of society
4. A participant in avocational pursuits
5. A participant in the regulatory (unconscious) functions involved in aesthetic, moral, and religious concerns (p. 129)

Consequently, for Goldhammer, career education receives part of its purpose through attempting careers preparation. The central

career is the economic which capacitates the learner for all careers.

Another broad conception of career education is presented by Heilman (1971) in defining Careers Oriented Relevant Education (C. O. R. E.). The concept of C. O. R. E. is that the purpose of education is to prepare each student for his present and future roles in an occupation, family, citizen and avocational career.

The Oregon State Department of Education in "The Comprehensive Career Education Concept" (1973) reiterates the five life roles concept developed by several state educators. Among others there are the role of family member, citizen, avocation and the economic.

The objectives of the Oregon Career education plan are to help each student gain self-knowledge as a basis for future career decisions, give each student a chance to explore "potential" occupation clusters, and to provide career preparation.

To Worthington (1972) career education is:

. . . that all educational experiences, curriculum instruction, and counseling must be geared to preparation for economic independence, personal fulfillment, and an appreciation for the dignity of work (p. 38).

Upon graduation or school termination every student would leave school with an entry level job skill or be prepared to continue his education at a technical or academic oriented school.

Articulation has emerged as one of the key characteristics that define career education. Vlaanderen and Ludka (1970) emphasize articulation in education within the framework of accountability. Schools, say the authors, are responsible for assisting students and personnel to understand and to reach meaningful goals. School personnel cannot be held accountable unless they, along with those who give them the educational mission, hold some mutually agreed upon goals, "in the same sense that a captain of a ship cannot be held accountable for reaching a certain harbor if he is not told the name of that harbor."

Some authors find career education a collection of older concepts built into a new single purpose.

Mannebach (1973) emphasizes that career education is not new. "Its concepts are rooted deeply in our contemporary society historically, psychologically, sociologically, philosophically, and legislatively."

However, Herr (1972a) makes a distinction between the old and the new. He gives to career education the continuing job of educating students for economic productivity and for choosing, although he characterizes career education as not being synonymous with vocational education. Vocational education is a part of career education, involving orientation and exploration of occupational opportunities, as an articulated whole which begins at kindergarten and permeates

all education. It includes specific preparation for occupations, assures realistic occupational choices, and gives each student a chance to assess his personal characteristics to help him more realistically set life goals.

Career education is supposed to be goal oriented, but Venn (1964) says that education is often placed between man and his work.

Evans and McCloskey (1973) point out that the call for pulling all the component parts of career education together has been made. Each of these parts exists in various forms in the schools today, but needs to be assembled in a meaningful whole. An articulated career education program would extend from early childhood schooling through a variety of post high school education to and including retirement. This coherent whole can be brought about, say the authors, by giving career education a rationale, a rationale which is already beginning to take shape. Guidance counselors, vocational educators, and curriculum specialists have all played leadership roles in the formulation of career education. Current concepts of career education have come from them. The difference between what constituted the concepts of economic life preparation in the past and current career education is found in articulation. ". . . The manner of organizing the concepts into an integrated whole and the term of 'career education' is of recent vintage."

Bolles (1972) also uses historical perspective to characterize career education.

Certainly the whole vocational/technical education movement, given particular impetus during the last ten years, must be seen as an attempt to relate Education with Work (p. 3).

The distinguishing marks of good career education are:

1. Good career education sees man and woman as more than worker and aims at developing the whole man, and the whole woman.
2. Good career education takes seriously the questions that students are raising about "education/work/retirement" having become "three boxes" in life and gives them tools for getting out of those "boxes."
3. Good career education helps students define the life-style they prefer, before zeroing in on a career, occupation, or industry to go with that life style.
4. Good career education deals with the native gifts a student brings, and not merely with those things taught in the classroom.
5. Good career education teaches courses in creative job-hunting, employeeship, and career-changing, to every student before he leaves the formal educational system (p. 8, 9, and 10).

Hoyt et al. (1972) defines career education as the total public education and community effort to help all people gain an understanding of and an appreciation for a work-oriented society and implement work values into their lives so that work becomes possible, meaningful, and satisfying. Evans in the same work emphasizes the need to

change the educational directions and would have the major objective include work preparation at all grade levels in a multitude of settings.

According to Hoyt et al. the key concepts of career education are:

1. Preparation for successful working careers will be a key objective of all education.
2. Every teacher in every course will emphasize the contribution that subject matter can make to a successful career.
3. "Hands on" occupationally oriented experiences will be utilized as a method of teaching and motivating the learning of abstract academic content.
4. Preparation for careers will be recognized as the mutual importance of work attitudes, human relations skills, orientation to the nature of the workday world, exposure to alternative career choices, and the acquisition of actual job skills.
5. Learning will not be reserved for the classroom, but learning environments will also be identified in the home, the community and employing establishments.
6. Beginning in early childhood and continuing through the regular school years, allowing the flexibility for a youth to have the experience and return to school for further education (including opportunity for upgrading and continued refurbishing for adult workers and including productive use of leisure time and the retirement years), career education will seek to extend its time horizons from "womb to tomb."
7. Career education is a basic and pervasive approach to all education, but it in no way conflicts with other legitimate education objectives such as citizenship, culture, family responsibility, and basic education.

8. The schools cannot shed responsibility for the individual just because he has been handed a diploma or has dropped out. While it may not perform the actual placement function, the school has the responsibility to stick with the youth until he has made the next step on his career ladder, help him get back on the ladder if his foot should slip, and be available to help him onto a new ladder at any point in the future that one proves to be too short or unsteady (p. 5).

For Marland (1972b) the purpose of all secondary and elementary education is to prepare each student to realize his own potential to enter successfully a job or some form of post-secondary education in order that each functions well in society and achieves personal fulfillment. The central role is the economic.

Career Awareness

Career awareness, the elementary school approach to the generally articulated pattern of career education, assumes the same broad definition as that of all career education. It also assumes a psychological base.

Super (1953) suggests a theory of vocational development which has provided emerging career education programs such a psychological base. People, he says, vary in their "abilities, interest and personality" and are thereby qualified for a myriad of occupations. In addition, people pass through life stages "characterized by those of growth, exploration, establishment, maintenance, and decline."

Within each stage there is a subdivision of: "the fantasy, tentative, and realistic phases of the exploratory stage, and the trial and realistic phases of the exploratory stage, and the trial and stable phases of the establishment stage."

In a summary of Super's developmental theory, Zaccaria (1970) presents the first 14 years of life as a period of mental and physical growth characterized by a prevocational substage (birth to 3) in which there are "no concerns with vocations or vocational choice," the fantasy substage (4-10) which includes "fantasy as the basis for vocational thinking," the interest substage (11-12) in which "vocational thought is based on the individual's likes and dislikes," and the capacity substage (13-14) in which "ability becomes the basis for vocational thought."

Luchins (1960) in his study to evaluate whether first experience or last had the greatest influence on subjects, found ". . . that on the whole, primary effects were slightly more pronounced than recency effects."

Herr (1972b), citing Luchins' premise that information obtained first is the most critical in later and ultimate decisions, says that much more attention must be given to the elementary school area for attitude development, decision processing, and self-awareness concerning the expectations and characteristics of work. Herr speaks to various methods of giving career education to the elementary school:

More specifically, through the creative use of curricular materials, films, displays, role-playing, dramatizations, gaming and simulation, elementary school children can be introduced to career development concepts which are accurate and pertinent to their future development. This is not to suggest that elementary school children be robbed of their fantasies, but rather that their fantasies operate from a base of knowledge instead of overromanticism and stereotype (p. 89).

Keller (1972) suggests an articulated elementary school program which would build on the psychological readiness. The goal for career development in the K-6 is:

. . . to develop a system whereby the existing elementary curriculum can be related to the realities of the world and reinforce positive work attitudes (p. 194).

The program calls for:

Kindergarten living in the immediate environment; child learns about work in his home; mother, father, and other members of his household.

Grade 1 living in the home and school; child learns about work in his immediate environment; home, school, church, neighborhood.

Grade 2 living in the community; child learns about community helpers who protect and serve him, as well as familiar stores and businesses in the community.

Grade 3 living in the community or expanding community life; child studies transportation, communication, and other major industries.

Grade 4 life in other communities and/or life in our state; child studies world of work at state level, main industries of the state, etc.

Grade 5 living in the United States or living in the Americas; studies broaden to cover the industrial life of the nation.

Major industries of the various sections of the U. S. are selected for study.

Grade 6 our American neighbors or life on other continents; studies expand to include Canada, South and Central America as contrasted to life in the U. S. (p. 195 and 196).

Keller also sees the teacher as a critical factor in career education methodology. The teacher must identify the objectives of knowing about the world of work, the skills to be developed, and the work habits and attitudes that need to be integrated into the daily lessons.

Drier (1972) presents 16 career development concepts, 14 of which are "introduced and developed" in two stages in elementary school and emphasized in junior and senior high. The first seven appear in K-3 and the eight through fourteen in school years 4-6;

1. An understanding and acceptance of self is important throughout life.
2. Persons need to be recognized as having dignity and worth.
3. Occupations exist for a purpose.
4. There is a wide variety of careers which may be classified in several ways.
5. Work means different things to different people.
6. Education and work are interrelated.
7. Individuals differ in their interests, abilities, attitudes and values.
8. Occupational study and demand has an impact on career planning.

9. Job specialization creates interdependency.
10. Environment and individual potential interact to influence career development.
11. Occupations and life styles are interrelated.
12. Individuals can learn to perform adequately in a variety of occupations.
13. Career development requires a continuous and sequential series of choices.
14. Various groups and institutions influence the nature and structure of work.
15. Individuals are responsible for their career planning.
16. Job characteristics and individuals must be flexible in a changing society (p. 40).

Items 15 and 16 are introduced in school years 7-9 and developed in high school.

Taylor (1972) emphasizes that on the elementary level career education objectives are broad and include awareness and orientation. The career awareness level excludes salable skills or career selection. Through their regular classroom activities students (K-6):

. . . will have an opportunity to learn about the world of work, the man-made environment, technology, and begin to understand and appreciate the dignity of work and the social contributions made by various occupational groups and professions (p. 14).

At an Oregon summer work session (1971) staff from the State Board of Education, Oregon State University, and the Springfield School District developed for grades one through six the following behavioral objectives:

1. Grades one and two--by the end of grade two:
 - a. Every child will be able to identify his parents' occupation or occupations.
 - b. Every child will be able to describe what his parents do in that occupation.
 - c. Every child will be able to identify where his parents work.
 - d. Every child will have received enrichment in career awareness through reading and social studies activities as teachers give attention to roles played by people who visit the classrooms and individuals about whom they read and study.

2. Grades three and four--by the end of grade four:
 - a. Every student will be able to identify all the occupations represented by people working in his particular school; i. e. custodian, secretary, delivery man, cook, teacher, etc.
 - b. Every student will be able to identify the cluster or job family from which these particular occupations are taken.
 - c. Every student will be able to describe the kind of work involved in these particular occupations.
 - d. Every student will be able to identify something of the life styles of these occupations.

3. Grades five and six--by the end of grade six:
 - a. Every student will be able to identify all the clusters described by the Oregon Board of Education staff.
 - b. Every student will be able to identify five occupations in each job cluster or job family (p. 1 and 2).

Troftgruben and Crone (1971) report the basic goal of career education on the elementary level is to give students an awareness of work in our society and to help students develop an understanding of their relationship to work. Certain overall career goals that have applicability in elementary school include giving students experiences and information to insure self-awareness as it relates to the world of work and providing a curriculum that relates the three R's to the world of work. A relationship should be drawn for students between occupational, family, avocational, and citizenship life roles and school subjects. Developing a positive student attitude toward work, others, and self is also a major goal.

Holcomb (1973) defines the scope of elementary career education as providing information for subsequent decision-making:

In grades K-6, the program is one of orientation and information. Activity centered projects give the student experiences into which the academic disciplines are interwoven. There is neither intent nor desire to channel elementary students into any occupational decision. The objective is to build a base of experience and exposure upon which the student can most effectively make such decisions relating to his next step in the life-education continuum (p. 152).

Portland schools (1971) give as the career awareness major goal K-6 "growing awareness of the many occupations in the world of work." Students should:

- a. Learn attitudes of respect and appreciation for all types of work and for workers in all fields.

- b. Relate the subject matter of each discipline to occupations.
- c. Express their own interests, aptitudes, and abilities in several of the major career fields.
- d. Make tentative choices of career fields that they would like to explore.
- e. Know the wide range of occupations open to them (p. 6).

Hoyt et al. (1972) define career education for K-6 with the following assumptions:

Career education in early childhood education and in the elementary school seeks a more balanced view of work and its relationships to life. It accepts and formulates these assumptions:

1. At least some people must work if society is to survive.
2. All work needed by society is honorable.
3. Any worker who performs such work is honorable.
4. Work that is enjoyed by some people is disliked by other people.
5. No one has the right to impose his work likes and dislikes on others.
6. A career is built from a succession of jobs which tend to lead each individual from those jobs which are personally less satisfying toward those which bring more satisfaction.
7. Generally, those workers who are trained, experienced, and productive find their work satisfying, and they will always be more in demand than their opposites.

8. Almost everything the school teaches can be helpful in at least one type of career.
9. Going through school with no consideration of the types of careers in which one might be interested causes one to miss much of the value in school.
10. Postponing consideration of personal career plans until one is out of school virtually guarantees that the individual will begin work with no training and no experience and will be non-productive even in an unskilled job.

Two assumptions are more controversial:

11. The work ethic should be taught to and accepted by all students.
12. All students should make a tentative career choice by the end of kindergarten and should modify or reaffirm this choice periodically throughout the school years (p. 73-74).

Career education: the Oregon way (1972) presents developmental goals for career awareness, grades K-6 in a school-long, total articulation through post high and adult. For K-6 the program includes:

- develop awareness of the many occupational careers available
- develop awareness of self in relation to the occupation career role
- develop foundations for wholesome attitudes toward work and society
- develop attitudes of respect and appreciation towards workers in all fields

--make tentative choices of career cluster to explore in greater depth during mid-school years (p. 2)

Dale Parnell, Oregon's superintendent of public instruction, writing in Oregon's career education story (1972) defines the aim of career education for Oregon's elementary and secondary schools as ". . . instilling in each student the desire for and encouraging him to acquire the competencies for economic self-sufficiency in the world of work."

Career Awareness Methods

Over forty years ago Alfred North Whitehead and John Dewey maintained that the school curriculum should not be separated from later societal demands on the student. Both called for an integration of curriculum around real life demands, in other words, something the student knows well and can do well. The career education literature reinforces their point.

Numerous educators since Dewey and Whitehead have stressed relating disciplines to meet educational goals, and recently the technique has found new applicability for meeting career education objectives.

Reynolds (1964) prepared a guide for elementary grade teachers entitled Guiding Children Through The Social Studies. Its intent is to enable teachers and, hence, their students "to discern coherence,

continuity, and preciseness in the study of human affairs." It reflects an interdisciplinary approach and a multi-dimensional study of home and community.

Combinations of disciplines to liberalize vocational education by introducing liberal goals into vocational courses was introduced by Miller (1963). Such techniques emerged as relating vocational disciplines to other subjects so that students might perceive the entire field as it relates to work, placing the emphasis on the learning rather than the skill, and placing emphasis on growth for socially-oriented change.

Smith (1966) calls for a multi-disciplinary approach by concentrating education on goals. He breaks down major public school education objectives as general education for self-realization, occupational education for economic efficiency, citizenship education, homemaking education, special education for individual and community problems, and recreational education.

The report of the Advisory Council on Vocational Education (1968) lists three basic concepts of education for employment. A major tenet is that vocational and academic education can no longer be compartmentalized. The three basic concepts are: 1) vocational education should be the basic objective of all education, 2) technological and economic progress demand change, 3) and finally, the freedom of opportunity is measured by the individual range of choice.

The report suggests that education must not be limited to particular skills.

Methods may be developed to meet job oriented goals.

Bergstrom (1966) reports from a study to determine if pre-work education of both general and vocational nature had any effect on later job success. The findings are "the more specific the training, the less is its likelihood of being relevant to actual job-related needs." No consistency was indicated between classwork in school and work on the job. Employers listed three clusters of characteristics they valued most for 150 male employees. These characteristics included communication competency, personal adequacy, and skills unique to the job. Personal adequacy was the characteristic most valued by the employers.

Berman (1968) conceptualizes the curriculum as encompassing several ingredients. First, it must be based upon an adequate view of man--a conception that is broad enough to account for a wide range of behaviors. Second, the curriculum should provide among its activities those which are designed to give children and youth the opportunity to develop the competencies designated in the view of man. Third, the curriculum must establish its points of emphasis or priority. Without such emphases the curriculum becomes bland and does not provide for means of dealing with problems of conflicting interests.

Articulation as the basis of methodology is seen by Drier (1972), who reports that Wisconsin staff members came to the conclusion that career education must be a process, or an articulated program, each part having an understood relationship to the entire K-14 program. The word for implementing career education into 300 classrooms was "infusing" career development activities into the existing school program. The development and "integration" of career guidance activities is seen as a vital focus for instruction. Counselors will help teachers integrate career information and experiences into the curriculum.

Evans in Hoyt et al. (1972) recognizes that many teachers lack training in career education, but cites methods which have been used successfully by "literally thousands of classroom teachers." In order to help students become aware of the values of a work-oriented society and at the same time acquire a general awareness of the occupational world, teacher resource guides have been developed which detail various basic work concepts as they relate to subject matter emphasis. Table 1 shows the relationship of the concept to the objective and finally to classroom learning experience.

School-wide projects which involve as many teachers and students as possible in a career education activity is an often-used approach. For example, one elementary school teacher had her students clean up a polluted stream near the school as a science

Table 1. Guidelines for Fourth, Fifth, and Sixth Grade Teachers (Partial Example).

Concept:	2. Persons have to be recognized as having dignity and worth.		
Objective:	a. Accept that people bring dignity and worth to their job.		
	b. Appreciate the manner in which work may provide the opportunity for the individual to enhance his dignity and worth.		
Learning Outcome	Learning Activities	Resources	Evaluation
a, b. Through his actions, the child will show that he values the dignity and worth of others.	<ol style="list-style-type: none"> 1. The children will list or discuss persons who affected their lives that day. 2. The child will interview some member of his household to find: (a) where he works, (b) how his job contributes to the well-being of others, (c) why he is proud of what he does, etc. 	Every person with whom the child comes in contact.	The teacher will observe the children.

project. Writing activities grew from that. The social science related activity was to examine the social causes and history. In art, landscape designs for a park were generated.

The principal got the cooperation of local employers who donated men and resources to develop the park, thereby giving the students opportunity to become aware of many more occupations and related activities first-hand.

School-based (K-6) business projects are often used as a career education teaching tool.

The important point for developing supportive learning activities to meet career education objectives, says Evans, is that no academic discipline is devoid of career implications for some students and all disciplines have multiple career implications for most students.

Deinlio and Young (1973) criticize the upperclass ideal that young people put off thinking about occupational choices until they finish high school. The authors cite the need for school-long systematic articulated goals and programs which will acquaint and prepare students for the world of work. Recent research has indicated that "developmental maturation" really begins in the first year of school, and continues throughout life. Many methods are being used to give students early experience doing what they have previously only talked about. For example, one class built a log cabin when they were

studying colonial American history. Another class wrote and staged television programs. A fifth grade class built a radio-controlled airplane for a unit on aerospace. Problem-solving and hands-on approaches were given as the methodological objective.

The Seattle elementary schools use a unit center approach which is to have various activity centers relating to a multitude of occupations located in the classrooms. These centers contain the information and tools to perform the various tasks demanded of the occupations.

The Cobb County Public Schools in Georgia, along with many other districts such as Seattle are putting life centered activities into the regular curriculum. In Cobb County the career development theme includes: 1) the student's evaluation of self-characteristics, 2) exploration of broad occupational areas, 3) introduction to the economics and social value of work, 4) introduction to the psychological and sociological meaning of work, 5) exploration of educational avenues, and 6) development of the student's progress of decision making based upon the foregoing items.

Besides the integration of these six objectives in each unit, the planners also developed six elements or components to be incorporated into all units. The elements are: 1) hands-on activities, 2) role playing, 3) field trips into the community, 4) resource people into the classroom, 5) subject matter tie-ins, and 6) introduction to occupations in the community that are relevant to the unit (p. 379).

In Bemus Point Central School Districts in New York the elementary students have been provided with the on-site experience offered by over 100 local businesses and industries. For students who want to become aware of many occupations, Ellensburg, Washington, provides a self-service-slide tape cartoon presentation to introduce many occupations within five major job families and 13 subsystems.

The Washington State Coordinating Council (1971) cites 20 different career awareness approaches in 20 Washington communities. A selected sample includes such diversity as having community resource people teach occupational skills, examining why welfare is legitimate, but a day's work is more satisfying, running a stock brokerage in a sixth grade class, lining up students and businesses as a business-enterprise team, and examining individual industries and their part in the total economy. The students' inquiries are satisfied with answers developed from self experience. The key to awareness is to help the students answer three major questions: Who am I; where am I going; and how do I get there?

The Springfield, Oregon, School District (1971) developed a composite list of activities used within the district in grades one through six in order to share the learning experiences district-wide. Among the general activities were such varied approaches as field trips, films, resource people who visited the classroom, sharing

of parents' occupations among students, observation of occupations within the school, discussions of inventions, preparing advertisements, and role playing. Many of the 84 activities related class work and subjects to the world of work.

Many idea lists of career education methods are appearing. One put out by Project EVE (1972) suggests 70 techniques which can be used to explore occupation education. The range includes coloring books of men at work for third graders, to writing out the answer to the question of what sort of person does the student want to become, to visiting an employment agency, to identifying the authorities in any field they may be studying, to solving problems through group introduction, to promoting parents' conferences to assist parents to better use of school vacation time to keep career education on a year-long basis.

Rammes (1972) feels that the logical person to coordinate career awareness education is the counselor. "Almost all areas of career education experiences for children fall within the guidance domain."

Rhodes (1970) offers a wider view of implementation than does Rammes:

The program is not to be counselor-centered, but curriculum-centered, with experience as the basis of the curriculum. If a curriculum-centered project is to succeed, the principals and teachers of the elementary schools involved must accept the leadership role in the program.

The curriculum project developed in relationship to these broad goals should not be inserted into the curriculum, taught for a short period of time one year or each year, but should permeate the curriculum (p. 74).

In the National Instructional Television Center's Career Education Prospectus (1973) the integrating quality of career education is supported:

School life for many young persons today is characterized by discontinuity--by a series of experiences which never merge together in the development of a meaningful self. Through the comprehensive approach to career education, the three kinds of learning--cognitive, experiential, and affective, are to be integrated (p. 29).

Students will develop by applying all the traditional school skills to work-related, "real world" problems. The experiential base may facilitate the discovery of self, and the career education approach will relate both the cognitive and experiential to the personal concerns of the student.

Marland (1972c) clarifies the role of the humanities within the current career education thrust by acknowledging that career education fills some undeniable pragmatic goals, but also probes human concerns. Many know "how" but have forgotten "why." The humanities must help elaborate and refine the concept of career education and guide each in his gropings "for these deeper human concerns on the job and off the job."

Holcomb (1973) says that the basis for sound career education methods will come to the elementary teachers from people "working

in the development of instructional materials." However, a problem for career education at the elementary level has been and is the availability of instructional materials designed expressly for career awareness. Previously, the world of work was often distorted through materials such as elementary readers.

Tennyson and Monnens (1973) point out in their 1964 study that children's aspirations are influenced by the vicarious encounters they have with occupations through reading. The systematic analysis used for this study showed that only a fraction of the work possibilities available were given any notice in elementary texts and that numerical work force needs were not given proportionate treatment in the texts:

The marked discrepancy between occupations mentioned in elementary readers and the distribution of jobs resulting from census data is clearly evident. Particularly significant is the relatively minor emphasis given to skilled, clerical, and sales occupations (p. 66).

Generally the workers studied by our boys and girls are engaged in the principal professions and service occupations. Infrequent mention is made of workers engaged in occupations of a clerical and sales nature and the attention given to skilled work shows little congruence with the proportionate distribution of these occupations in the economy.

This distorted emphasis may in part be due to the fact that educators who are responsible for writing elementary textbooks are academically trained and probably have little familiarity with business and industrial conditions. But there is a second factor of no less importance; namely, the stereotype of career success so prevalent in the American culture (p. 66, 68).

Currently, materials are beginning to catch up with the demands of the career awareness approach to education.

McKnight (1973) has published a set of six career awareness packets, one for each career awareness level, one through six, which puts vertical career education articulation into smaller working units. The packets stress active participation in the learning and utilize educational methods stressed by the federal and many state education departments. There is full flexibility, activity orientation, fusion of career awareness into the present curriculum, and education which is geared for the psychological and physical growth rates of each student. On the six levels the students become aware of:

- 1) their self-image through human activity, 2) exploring human experience in work and play, 3) learning ways that people work and play together, 4) understanding the changing world of work and leisure time activity, 5) synthesizing their knowledge of self-image and community environments to meet personal work and play needs, and
- 6) exploring the relationship of self-image, educational environments, and the world of work.

The comics are being employed as a method to reach more students. King Features in an advertisement in the American Vocational Journal (1973) uses the cartoon character Popeye in a series of 15 comic books to cover 15 occupational clusters as defined by

the U. S. Office of Education. The material is designed on a fourth-grade reading level for easy comprehension.

Karp (1970) presents another cartoon approach, namely the U. S. Department of Labor's project to use that technique to acquaint a larger reader market with occupational opportunity. The main population target was the young ghetto dweller. In actual follow-up studies, the comic occupation awareness books had twice the pick up that traditional brochures had.

For an elementary school audience, Marland (1972d) examines some career education methods for that level in the teacher edition of Weekly Reader.

- 1) Have children find out what their parents actually do at work. Explain job clusters (older elementary students categorize their parents' occupations).
- 2) Collect pictures of people working from magazines and group by occupations.
- 3) Make it real. Bring parents and relatives into the classroom to discuss and demonstrate work processes.
- 4) Select an object such as a book, Coke, a record, a newspaper, etc., that can be used for a full class project. Try to determine all the occupations that contributed to the book.

Baker (1973) presented to second graders through slides and other visuals his jobs (life roles), including the economic. As an

educational writer, he put on the cap and gown uniform of the educator. He used slides and discussion to highlight each of the roles. Examples of publications he authored were sent around the room. To give the students an understanding that all must work at many jobs and those jobs may change in priority from time to time was the major objective of the presentation.

Methods and objectives came together for Tilton (1972) by grade or year levels:

First, students learn to know themselves in their immediate environment and begin to relate to the broader environment beyond the family and school.

Second, students develop identifications with workers, fathers, mothers, or other significant persons.

Third, students acquire simple manual and mental skills in the performance of a number of work tasks.

Fourth, students at the upper elementary level become aware of factors that may have an impact upon their future.

Fifth, students acquire satisfactions in the task of learning itself.

Sixth, students learn to get along and work with peers (p. 217).

Other methods of career awareness implementation are presented in a list of 84 suggested activities which include such activities as students interview parents about occupations; people in the community come to school to share their jobs with the students; different workers in the school talk to students about their jobs; upper grade

children share their hobbies with K-6 students; students write resumes of their own job skills (babysitting, yard work, painting, etc.); have classroom discussions about the importance of all kinds of jobs and how each relates to society; compare jobs of 100 years ago to today; fill out an employment application; have classroom duties, and are elected to officer positions; students choose one occupational field (optics for example) and study the eye, plus related occupations and implications of that field; the class visits an airport and gets acquainted with all the occupations surrounding that place and functions; a product is brought to class by a workman who explains how it is made and how he helps; as students study a country, a man who worked there comes to class and discusses his occupation in that country.

Dobrovolney (1972) states a case for articulation and total school (K-14) participation beginning with K-6. Total curriculum revision is necessary. Career information is worked into the total curriculum and is particularly aimed at communication skill improvement and decision-making development:

Rather than going through the simple reading exercises of "See Spot jump" or "Watch Dick run" couldn't the child get much more insight into his community's work life with "See the machine run?" Even now, task forces are busy developing models of career education to put something into the hands of the grade teacher. Central to the success of such education is the use of new teaching techniques--computer aided instruction, video taped

lessons, programmed learning, self-paced instruction and hands-on activities (p. 74).

Fulton (1973) cites the results of the Career Concepts Inventory (CCI) to identify what children know about their parents' work, how many and what kinds of occupations they list, their perception for perceiving similarities and differences among various occupations, what is the extent of children's vocational vocabularies, which occupations do children consider important and desirable and which do they consider not so desirable, and are there geographical differences in the acquisition of career concepts by children. The number and kinds of occupations children list revealed that:

Preschool children usually list one or two occupations, but some can list none. First graders list an average of five or six occupations; third graders between 10 and 15; and fifth graders average between 18 and 20. Most of the occupations listed are classified as (1) professional, technical, and managerial followed by (2) services, and (3) clerical and sales (p. 89).

Sylwester and Matthews (1972) in raising four major questions the child must deal with also get to the next critical stage--application through school methodology to help the student answer those questions. The four questions are: 1) what am I like, 2) how am I changing, 3) what will I be like, 4) and how will I affect others and how will they affect me. To help answer the first, students investigate the world (and working world) around them and respond by dealing with such activities, "If I were _____ for a day, these are the things I would do."

The teacher must understand how the student defines work in relation to himself through his emerging values and attitudes, knowledge and skill. The second question gets answered through activities which deal with time, watching a vine grow up the classroom wall, writing a diary, exploring possible careers--all lead to, how and changing. To answer, what will I be like, students "focus on activities that demand a reaction to occupational life." For example, the students write a letter to their parents saying that today they want to be _____. What do his parents think of that idea? The choice and reactions are then discussed in class. Another activity is to place occupational tags on a board and ask students to pick one and act it out in a charade fashion. The fourth question is answered through all kinds of activities which require cooperative effort. Students are asked to perceive and report on all kinds of classroom and world-wide activities which either succeed or fail because of cooperative behavior or a lack of it. For example, the class may visit a clinic and examine why specialists often work together. Because television often portrays people in conflict or cooperation, the students may examine and discuss the implication of those conditions. Another technique is to assign a small committee to observe a particular occupation and record the variety of people and needs that the occupation must deal with. What might a service station worker be called upon to deal with in one day is an example.

Summary

Problems and Trends

The Educational community is directing itself to a career or careers education focus. For example, Worthington (1972) points out that nearly 2.5 million young people of the 3.7 million leaving their formal education lacked adequate skills to enter the labor force at a level approximating their academic and intellectual experience. The cost of this non-preparedness is about 30 billion dollars.

The total public school program, says Marland (1972b), has no real goals. The students are not being prepared for jobs or for higher education. The U. S. Office of Education has moved toward career education as the change agent for the nation's schools, Marland states, because of every ten students in high school, two will finish college, two will receive occupational training in high school and six will be ill- or unprepared for employment. The attitudes of young people and their parents guarantee these conditions.

Worthington (1973), citing Bureau of Labor statistics, concludes that in the foreseeable future nearly 80 percent of the work needed in the U. S. will not require a bachelor degree as part of the preparation. The present system fosters hasty career decision-making and allows the student little option for changing career direction, for receiving training in order to shift occupations later in

life, or for receiving career guidance and counseling while in school or out.

Wells (1973) finds miseducation in societal attitudes. He states that many parents hold an antivocational bias because they feel the four year college degree is the only avenue to success, and consequently, push their children into the academic program which may be inappropriate to the child's interests in many cases. This bias is reflected in the high school counseling time devoted to career guidance. In a high school graduating class of 400, 40-80 of which will graduate from college, the bulk of counseling time will be spent with those college-bound students. The 150-200 who will be employed full-time within the next two years will receive little counseling time and be unprepared for locating jobs, knowing how to apply for employment, and for understanding compatibility between their personal interests and the real world of work.

Career education, then, is viewed as a focus for educational objectives. Consequently, the major questions that must be asked deal with what is important for the student to know, what does he need to be able to do, and what does he need to understand about himself and feel about his life in order to realize his potential within the framework of his life choices.

Wells in summarizing career education says that:

Meaningful career education is education with a purpose. That purpose is training that fulfills the needs

of the students, employers, and the community in one exciting venture (p. 369).

Roberts (1971) argues that both general education and vocational education are of equal importance in the education of workers:

Teachers, administrators, and other personnel employed in vocational education take the position that vocational education and general education are major divisions of a total education program, and that one of these divisions does not necessarily include the other. Each of the divisions is of equal importance, and both are necessary in the education of workers (p. 12).

Rhodes (1970) sees the methods of career awareness as fulfilling two fundamental goals: to give youth a respect for work, and to motivate students toward that world of work. Career education emphasizes a "do something" approach rather than a "be somebody":

The purpose of this program is to insert into the K-6 curriculum a procedure whereby every student will gain the experiences and exposure to the world of work which will enable him to see how education leads towards jobs and careers. It should further help each student to have a better understanding of work as a part of life and its importance in our technological society. This will provide students also with an understanding of the wide spectrum of jobs and careers that are really available and help them to gain a respect for opportunities to earn a living. It is not intended that this program will prepare youngsters for any sort of a job nor will it require them to make a decision as to what in which career they are interested. It simply should provide a re-organized approach to elementary education which will cause students to be more aware of the wide range of occupational opportunities available to them. A secondary value of a program of this type would be the involvement of the community as a part of the school program to help prevent the alienation and separation of school from life. Hopefully, the program of this type would result in better and more effective education in the academic sense through increased student interest and motivation (p. 72).

Lyon (1973) gives both a rationale for and a description of school:

If a child sees his education as a burden to cast off rather than as a ladder leading somewhere, he is not likely to use the resources at hand when they are most conveniently offered. We know, for example, that the pattern of underachievement, which for boys begins in third grade, is an accelerating one, difficult to break. Yet these boys are faced with the choice of entering the college preparatory program at age fourteen, one of those almost irreversible decisions that determines one's social and economic positions as an adult. It is possible that children who become vocationally mature through earlier contacts with occupational exploration approach education with a greater commitment, even in grade school (p. 49-50).

Citing Donald Super, Lyon contends that education must help us know ourselves in order to make good career choices.

Smith (1972) gives a broader scope to career education than just economic:

There can be little doubt that one of the major thrusts creating career education is the striking need for relevance based on the reality of the present U. S. labor market. But career education is more than just economically motivated. It recognizes the potent implications of earning a livelihood in this country as a measure of the total human development as a human being. This marks the emphasis in career education as critically and dramatically different from one of a narrowly defined emphasis in vocational education (p. 1).

Marland (1972c) also stresses the wider role of career education:

But career education is not merely job-getting. Nor is it a competitor or adversary to the high traditions of academic teaching and learning. The academic skills are still the school's principal raison d'etre. But we believe young people in school and college will learn them better, with more ease and interest, because their mathematics,

language arts, sciences, and social studies have been related to purposes which students perceive as important to their own future lives. Career education is not a substitute for the old curriculum, even though it entails the use of some new materials; rather, it is a new context for learning, a new way of viewing curriculum. Every teacher knows that the single, most powerful teaching force in a classroom is motivating students. We believe that career education will do that, at any level the student finds personally significant. All good teachers have intuitively and sensitively tried to relate learning to life. Career education moves us along this road, systematically, hopefully with richer materials and a better knowledge on the part of the learner as to why he is learning (p. 8).

The National Association of State Directors of Vocational Education (1971) adopted a position paper which summarizes characteristics which seem to be inherent in and summarize career education:

1. Career education is not synonymous with Vocational Education but Vocational Education is a major part of career education.
2. Career education enhances rather than supplants public school educational programs.
3. Career education is an integral part of the total public education enterprise.
4. Career education involves all students--and all educators.
5. Career education involves extensive orientation and exploration of occupational opportunities.
6. Career education emphasizes individual instruction and student determination.
7. Career education is a continuum that begins at kindergarten and extends throughout employment.
8. Career education contributes to student incentive and aspirations.

9. Career education includes specific preparation for occupations.
10. Career education assures realistic occupational choices.
11. Career education promotes wholesome attitudes toward all useful work.
12. Career education permits each student to realistically assess personal attributes as a part of setting life goals.
13. Career education provides a means of articulation from grade to grade and level to level.

Dewey (1931) believed that industrial education had the potential to provide a focus for all the other subjects. The attempt of career education today to integrate all school activities for the purpose of helping students achieve their potential, personally and vocationally, is really the correlating concept that Dewey held and advocated throughout his life. Total educational values were primary, the industrial being a part of possible focus. He pointed out the regimentation and isolation of school activities that he felt would follow if industrial and academic education were separated.

Whitehead (1932) makes an argument for integration of curriculum:

The antithesis between technical and liberal education is fallacious. There can be no adequate technical education which is not liberal, and no liberal education which is not technical; that is no education which does not impart both technique and intellectual vision. In simpler language education should turn out the pupil with something he knows well and can do well (p. 74).

There are three major curriculums, he asserts: the literary, the scientific, and the technical, but insists that each of the emphases should include the other two. Every form of education should give the student the knowledge and skills to assure success in that emphasis be it a craft, literary or a scientific education.

The conclusion presented by the literature is that occupational preparation should begin no later than elementary school with a growing knowledge and appreciation of self and a realistic picture of the world of work. The total school resources should be integrated in support of the emerging career goals of each student within an articulated pattern, kindergarten through grade 14 and beyond.

The words of Russian poet Yevtushenko (1968) from his poem "Lies" might easily epitomize the quandary that many contemporary educators face who have lost the connection between life objectives based on substantiated needs of students and school learning experiences:

Telling lies to the young is wrong. Proving to them
that lies are true is wrong (p. 52).

Which way is the future? How much does the future depend upon a realistic conception of the present? Can education break away from tradition once it is felt that tradition has become a lie? Is education for all the parts that together comprise the whole man in all of his multi-faceted uniqueness or should educators concentrate on one

aspect of human need, be it economic or aesthetic and train the student to fit that bias? Most career educators seem to want to reach the whole man, but generally through his desire to fulfill himself through an economic role. The rest of the program supports that aim. There is a call "to do" within an objective framework. As yet the affective "to be" must remain more in the realm of happenstance while the system gears man for the world of work.

III. THE DESIGN OF THE STUDY

Preparation of the Instrument

As mentioned in Chapter I, the instrument used in this study was prepared from a search of national, state and local career education literature. The questionnaire contained 60 questions which were ultimately answered on a five-point Likert-type scale of 304 respondents (280 students, 24 teachers). This scale permitted five degrees for each response from "strongly agree" at number one to "strongly disagree" at number five. Number three was "uncertain." The statements which were finally selected asked the sixth grade students and teachers for their degree of agreement or disagreement with the concepts and practices which the literature presented as those characteristic of career education.

A guide for the number of statements included in the questionnaire on any one aspect of career education was the amount of attention given to that aspect in the literature. For example, job preparation or the economic life role was mentioned in most of the sources as the key objective in career education. Consequently, nearly one-third of the questions were designed to find the agreement or disagreement with the many concepts and practices presented at the elementary school level which dealt with the economic objective. Less attention was given in the literature to the ethical, aesthetic, and

spiritual aspect as a part of career education. Yet some educators and writers said that the moral, aesthetic, and spiritual are necessary parts of career education. Therefore, 13 questions were included on this aspect, but proportionately less than those on the economic role. One might assume that career educators, for the most part, have chosen an economic orientation and that choice, perhaps, accounts for the heavy emphasis on "job" found in the literature. The less amount of emphasis given to the aesthetic, ethical, and spiritual aspects of careers education might be explained by the difficulty of measuring the affective domain. Career education is performance-based.

For the purpose of this study the statements in the questionnaire were balanced as follows:

All the life careers	8 statements
The economic or job career	19 statements
The family career	5 statements
The citizenship career	4 statements
The avocational career	2 statements
The aesthetic, ethical, and moral aspect	13 statements
Teaching methodology	5 statements
Self-awareness	4 statements

Readability Level

Because the instrument was administered to both teachers and students on the sixth grade level, it was necessary to place the reading on a sixth grade or less level. The Fry (1972) readability formula was used. By counting three 100 word samples and finding the average number of words in each sentence, and the number of syllables per 100 word grouping and then dividing by three, the number of syllables and sentence length was determined for the questionnaire. By using the Fry Graph, the level was placed just between the fourth and fifth grade. Dr. Kenneth Ahrendt, education professor and reading instructor at Oregon State College, examined the questionnaire for reading appropriateness, both in the instructions and the 60 statements and offered suggestions for improvement which were followed.

The Jury Panel of Experts

In order to evaluate and improve the questionnaire, a jury panel of experts was chosen including the following Oregon State University personnel:

- 1) Dr. James Armitage, Director of Elementary Education, Oregon State University
- 2) Dr. Glenn Clark, Director of the Division of Educational Foundations, Oregon State University

- 3) Dr. Gene Craven, Associate Professor of Science Education and of Physical Science, Oregon State University
- 4) Dr. Richard Gardner, Coordinator of Career Education Projects, Oregon State University
- 5) Dr. Carvel Wood, Associate Professor of Education, Oregon State University

These five educators are working as a committee in an effort to examine and clarify career education teacher preparation for the School of Education at Oregon State University. Each panel member was asked to review the questionnaire, including the instructions and individual statements and to offer suggestions for improving the instrument. As a result of their review, approximately eight statements about jobs were dropped in favor of more statements about life roles besides the economic, the demographic section was placed at the conclusion of the questionnaire, and the instruction section was modified to include an example statement for each instruction.

The Field Test and Instrument Revision

The instrument was field tested on 35 sixth grade students and two sixth grade teachers in two Oregon elementary districts, Pratum and Molalla. These two districts were chosen because of their interest in the study and willingness to cooperate with the field test. The

students were asked to circle words or phrases which they didn't understand and to respond on the five-point Likert-type of scale to each statement. Subsequently, a personal interview follow-up was made with both teachers and a random selection of students to determine reactions and suggestions. At least four basic points were examined: "I did or did not understand the statement," "I didn't know what these words or phrases meant," "I didn't understand how to do the questionnaire," and "I would suggest the following." As a result of the field test, several longer, two or three part questions were shortened or replaced and some words and phrases were changed.

From the field test, it also became apparent that the questionnaire should be administered by one person in order to insure uniformity over the many testing situations.

Selection of the Sample Populations

The sample population consisted of 304 respondents from two elementary school districts: Springfield, Oregon, with district-directed career awareness, and Hillsboro, Oregon, which at the time of the study had no district directed program.

Springfield has had a career education commitment for several years and career education projects have been funded in that district by both the U. S. Office of Education and the State Department of

Education. Three years ago a national visiting evaluating team chose Springfield as one of 12 identified career education districts in the nation and the only one in Oregon.

Hillsboro, with the exception of the district career education commitment, resembles Springfield demographically. Both are suburban communities near an industrial center. Springfield's population is about 27,000; Hillsboro has nearly 15,000. The number of elementary schools in each district and their population size is similar, although not equal. Both are multi-cultural districts and are feeder-schools for a multiplicity of further school and industrial opportunities.

Hillsboro, by district admission and at the time of this study, had not made a commitment to career education, except with what may have been occurring in individual classrooms. The Washington County I. E. D. confirmed that the Hillsboro Elementary District was just beginning to make such a career education commitment, but hadn't yet begun programs when the survey was made.

Collection of Data

A survey questionnaire was used as the data instrument. Initially the instrument was designed for mailing to and from the respondents. For the actual population survey, however, the

instrument was administered by the writer to insure uniformity on the instruction coverage and execution of the questionnaire.

Several teachers who could not take the survey at the particular time that it was being given mailed in theirs within a few days after the school visit.

Another reason for administering the questionnaire personally was to minimize the extra work for faculty, many of whom expressed a reluctance to take time to do surveys. It was felt that the survey questionnaire experience could be educational for the students and was presented accordingly.

By proctoring the questionnaire completion, the author caught many respondent omissions and uniformity was achieved.

Ultimately 140 sixth grade students and 12 sixth grade teachers from each district used a questionnaire. All the available sixth grade classes were chosen in the Hillsboro district and all the career education sixth grade classes were used in the Springfield district. One teacher and five student questionnaires from Hillsboro were randomly eliminated in order to achieve equal N's for the two way arrangement. The statistics were done with Wayne Courtney.

Statistical Design and Significance Testing of the Hypothesis

The sampling technique was a two-way arrangement (2 x 2 matrix) as illustrated in Table 2.

Table 2. Two-Way Arrangement Sampling Technique.

Personnel	School District A	School District B
6th grade teachers I	12	12
6th grade students II	140	140

Methods of Analysis

Means and standard deviations were computed for each item in the instrument and data were analyzed to test the following hypotheses:

- H_1 There is no school effect
- H_2 There is no personnel effect
- H_3 There is no interaction effect

The F statistic was used to compute the analysis of variance in order to test each of the hypotheses with the critical significance level being set at $\alpha = .05$. If F (computed) was greater than the tabular F (3.89), then the hypothesis was rejected; otherwise, the hypothesis was retained.

The analysis of variance table which follows indicates the significance testing schema:

Table 3. Analysis of Variance Schema.^a

Source of Variation	df	SS	MS	F-Ratio	Critical F. 05 DF= 1, 150
School	1	A	A/1	MS Schools/MS error	3.89
Personnel	1	B	B/1	MS Personnel/MS error	3.89
Interaction	1	C	C/1	MS Interaction/MS error	3.89
Error	166				
Total	169				

^aA further explanation of this table and terms are found in Courtney and Sedgwick (1972). See bibliography.

When the hypotheses are tested and retained as a result, there is no need for any further analysis. The F statistic considers all of the means together and does not compare individual means in the same group.

The data scale used in the study was considered to be of the interval type under the assumption of underlying continuity.

Underlying continuity, according to Courtney and Sedgwick (1972) is exemplified by a score on a 100 point scale. The score of 83, for example, represents a value which is considered as a continuous measure, thus giving an instance when discrete data is treated as continuous.

The F statistic was considered to be robust enough to adequately analyze such data as were utilized in the present study.

IV. PRESENTATION OF THE FINDINGS

Chapter four is an objective presentation of the data secured from the responses of sixth grade students and teachers to the questionnaire. As examined previously the survey instrument was built on the concepts and practices recognized by "experts" as relevant to the emerging career education movement. An introductory examination of the findings are provided by the histogram, Graph 1.

The F statistic (two-way analysis of variance technique) was used to analyze the data in this study. Differences in mean score results were tested for all students in the career and non-career district, all teachers in both districts, for differences between the two districts, and for the interaction effect between personnel and schools.

By computing the means and standard deviations for each of 60 items in the questionnaire, the following hypotheses were tested:

- H₁ There is no school effect
- H₂ There is no personnel effect
- H₃ There is no interaction effect

The critical significance level was set at $\alpha = .05$. When computed F for any variable was greater than tabular F 3.89 the hypothesis was rejected. Twenty-seven of the 60 questionnaire items showed a significant difference beyond the critical level; thus the

null hypothesis was rejected and either districts (schools), students and teachers (personnel), or interaction varied considerably for those 27 items.¹ A more detailed analysis of the 33 variables for which the null hypothesis was not rejected, namely that there is no difference between personnel or schools, will follow.² An item by item examination of the 27 rejected items was conducted to determine the extent of the difference between the two districts, the personnel, and the interaction and where the difference lay. When the null hypothesis (H_0) was rejected by district (H_1) or personnel (H_2) responses, the group means for the opposite category of respondents were compared to it. For example, in item two, a rejected item by personnel responses, the teachers agreed they had helped students in this activity more than was indicated by the students' agreement with the statement. The mean for students on the five-point scale was 2.74 and 2.12 for teachers, indicating that the teachers were closer to what the experts deem essential for career education. For item two district one means were 2.59 and district two were 2.78 career district. Mean comparisons for rejected items are shown by Table 4.

¹These can be found in Table 4 (page 76).

²These can be found in Table 5 (page 78) which also includes all figures found in Table 4.

Mean responses for all variables by all respondents were computed and are presented in Table 5.

Analysis of Variance

The null hypothesis (H_0) was tested using the F statistic. The null hypotheses state that there is no difference between the mean score responses of schools, personnel, and interaction. As previously reported, there were 27 instances at the .05 level of significance for which the computed F value was greater than the tabular value of 3.89. The hypothesis was rejected between schools for five variables and between personnel for 20 as shown by Table 5. In only two items did both personnel and schools reject the same variables. The table indicates the rejected variables, the statements, mean scores for personnel, schools, or both, the computed F, and the tabular F.

Of the 33 variables for which the null hypothesis was not rejected, namely 1, 4, 6-9, 11, 13, 14, 17, 18, 20, 22, 25, 29, 33, 34, 36, 39, 41, 43, 45, 48, 50-54, and 56-58, nine items were identified in the job classification category, seven in careers concepts, two in family, three in citizenship, one in avocational, five in values, one in self-awareness, three in career education methodology, and two in the aesthetic. Total numbers of questionnaire items in each career education category were: 19 job, eight career

education concepts, five family, four citizenship, two avocational, 10 values, four self-awareness, five methodology, and three aesthetic.

Difference for the Interaction Effect

The two-way classification analysis of variance tested 60 null hypotheses (H_3) for no interaction effect difference. The results are presented in Tables 6 and 7 which give the mean scores for schools and personnel, the computed F, and the tabular F. The null hypothesis for interaction was rejected for four of the 60 variables. Graph 2 indicates the interaction effect differences for variables 3, 24, 44, and 59 and shows 3 and 59 as disordinal and 24 and 44 as ordinal.

Standard Deviations

Standard deviations were computed for all variables and for schools and personnel from both groups, thus giving four standard deviations for each of the 60 variables (Table 8). Items of interest were: unusual standard deviations (large or small) within each group, consistency of standard deviations between all groups and between schools and personnel, and standard deviation patterns that are congruent with a career education category or topic.

Teachers had less variance for their responses to the questionnaire than did students for 56 of 60 variables. A response

difference of over 40 standard deviation points was found between teachers and students for 27 variables. The mean of the variability of responses is .75 for district two and 1.09 for district one, and for personnel the mean variability of response is .81 for the teachers and 1.15 for the students. Although the patterns of deviation are similar the mean responses were often dissimilar. The career education district (D2) shows consistently less standard deviation for questionnaire responses than does the non-career education district (D1) for 56 of 60 variables.

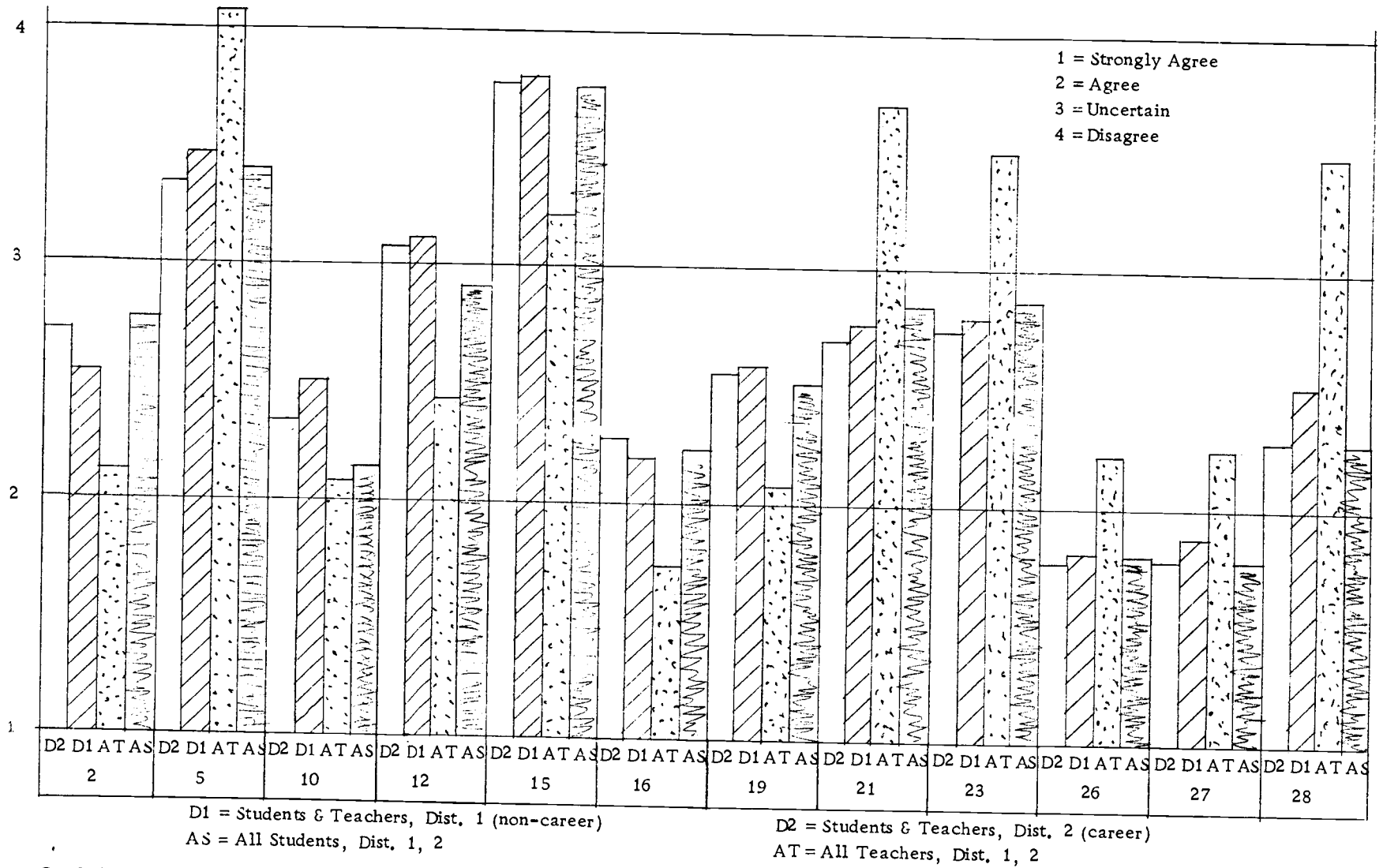
Means

The mean response was computed for each variable for students from the career education and non-career education district and for teachers from each district as shown by Table 9.

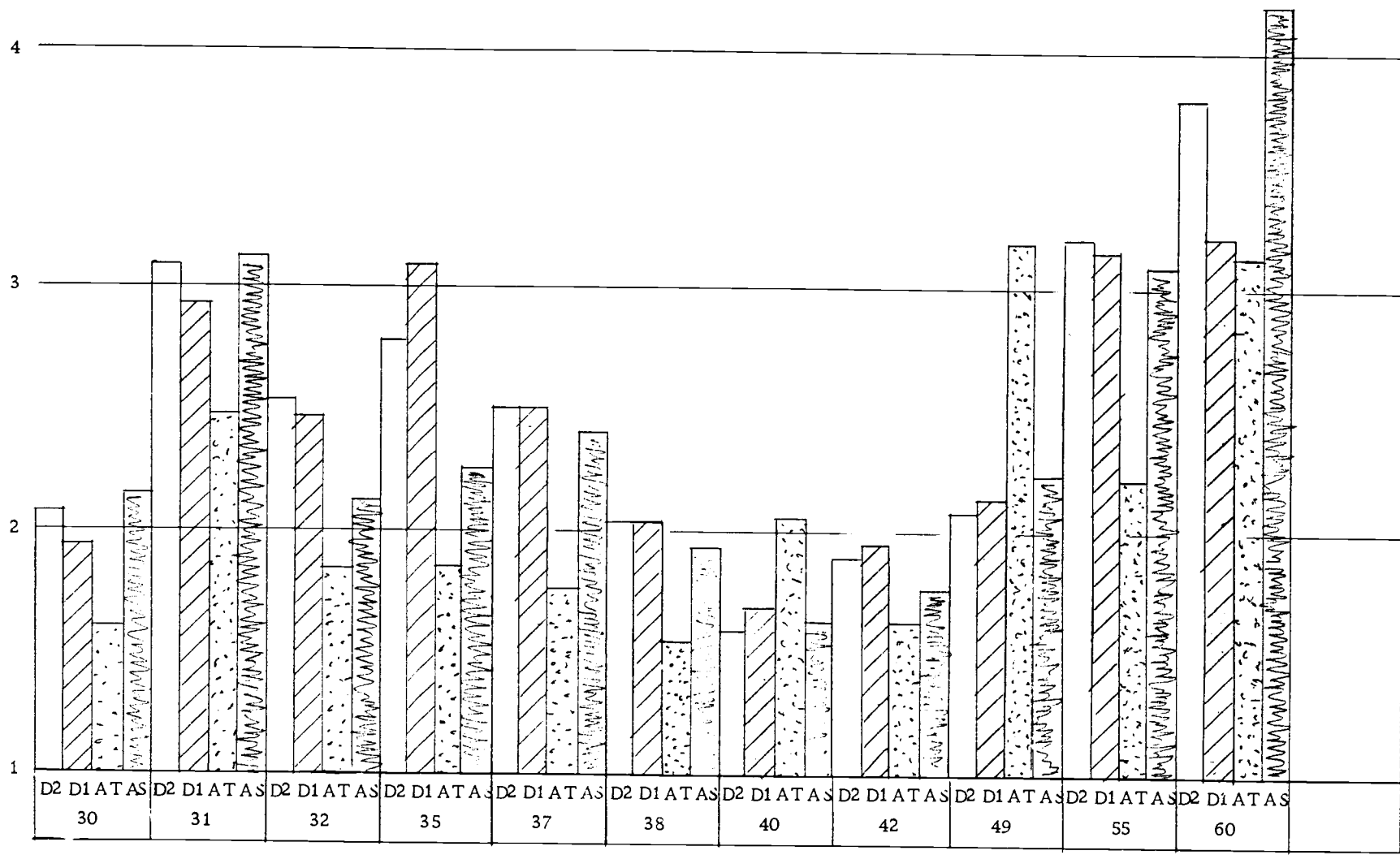
For 47 of the 60 variables the career education district teachers' mean response was in more agreement with career education concepts and practices than was the mean response for the non-career district teachers. The mean response for the two teacher groups was the same for four variables.

Students from the career education district responded with more agreement to career education concepts and practices than did the other student groups on 32 of the 60 variables. For 23 of the items

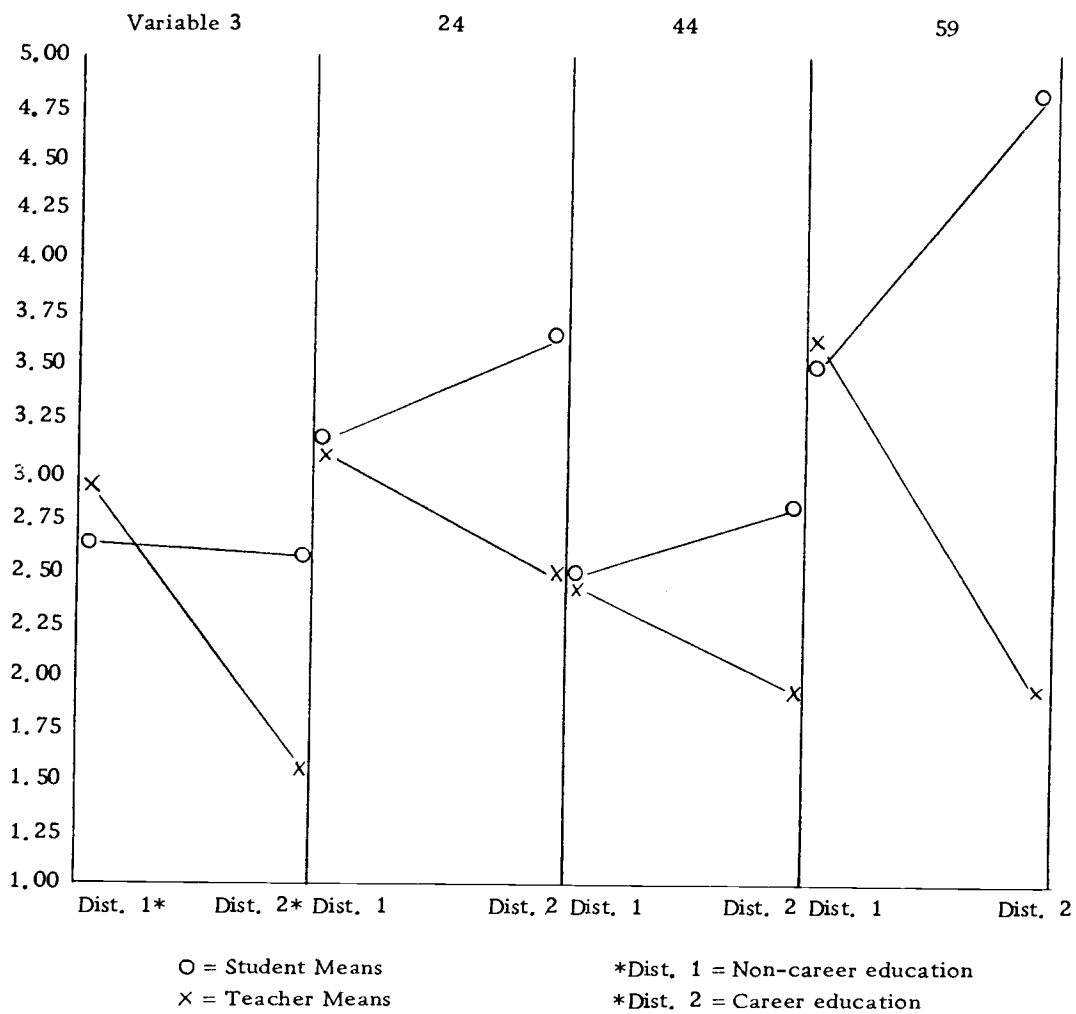
there was less than a .05 mean difference for the student mean responses.



Graph 1. Comparison of Variable Mean Scores Rejecting Hypotheses H_1 and/or H_2 (Significant Level $\alpha = .05$) with Other Groups within the Same Variable.



Graph 1. (Continued)



Graph 2. Interaction Effect (No Additive Effect)

Table 4. Rejection of the H_0 for Individual Survey Items (Significant Differences of Mean Scores, $\alpha = .05$)

Variable Number	Personnel Effect (H_2)	School Effect (H_1)	Statement	Means		Computed F	Tabular F
				Dist. 1 (D1) or All Students (AS)	Dist. 2 (D2) All Teachers (AT)		
2	x		I have learned about the responsibilities of being a parent.	AS-2.74	AT-2.13	7.47	3.89
5	x		The best job pays the most.	AS-3.35	AT-4.08	6.94	3.89
10		x	Career education is for everyone.	D1-2.51	D2-2.19	5.88	3.89
12	x	x	I understand what a life role is.	D1-3.17 AS-3.07	D2-2.88 AT-2.46	6.25	3.89
15	x		I plan to have the same job my mother or father has.	AS-3.80	AT-3.25	4.55	3.89
16	x		My abilities aren't suited for some kinds of jobs.	AS-2.34	AT-1.71	6.27	3.89
19	x		Career education is part of every subject.	AS-2.63	AT-2.08	4.75	3.89
21	x		A good future means going to college for four years.	AS-2.73	AT-3.71	11.13	3.89
23	x		We have had many outside speakers visit our class.	AS-2.76	AT-3.54	9.25	3.89
26	x		Whenever a person leaves school, he should be prepared to get a job and to do it well.	AS-1.73	AT-2.25	5.55	3.89
27	x		School subjects are important for understanding work.	AS-1.76	AT-2.29	7.48	3.89
28	x		The most important career is the one that pays you a living.	AS-2.34	AT-3.54	20.25	3.89

Table 4. Continued

Variable Number	Personnel Effect (H ₂)	School Effect (H ₁)	Statement	Means		Computed F	Tabular F
				Dist. 1 (D1) or All Students (AS)	Dist. 2 (D2) All Teachers (AT)		
30	x		In school I have learned something about money.	AS-2.10	AT-1.63	4.03	3.89
31	x		In school I have learned something about taxes.	AS-3.10	AT-2.50	5.06	3.89
32	x		In school I have learned something about the use of leisure time.	AS-2.61	AT-1.83	10.15	3.89
35	x	x	My teacher has taught me something about family life.	D1-3.07	D2-2.38	21.04	3.89
37	x		My teacher helps me learn more about me.	AS-2.54	AT-1.75	7.73	3.89
38	x		It is important that I be able to appreciate myself.	AS-2.02	AT-1.54	4.87	3.89
40	x		I would like to earn a living by having a steady job.	AS-1.62	AT-2.04	5.03	3.89
42		x	The main job of the school is to prepare people for living a useful, enjoyable life.	D1-1.96	D2-1.70	6.51	3.89
49	x		All school work should help prepare me for a job.	AS-2.13	AT-3.21	18.66	3.89
55	x		You don't have to go to college to prepare for most jobs.	AS-3.24	AT-2.29	12.06	3.89
60		x	I have taken three or more field trips this year.	D1-3.29	D2-4.19	31.25	3.89

Table 5. Mean Responses to All Questionnaire Statements.

Variable Number	Statement	Means	
		All Personnel, Dist. 1 All Students, Dist. 1, 2	All Personnel, Dist. 2 All Teachers, Dist. 1, 2
1	I know the kind of work I like to do.	D1-1.90 AS-1.88	D2-1.84 AT-1.79
2	I have learned about the responsibilities of being a parent.	D1-2.59 AS-2.74	D2-2.78 AT-2.13
3	I know enough to get at least one grown-up job.	D1-2.65 AS-2.77	D2-2.78 AT-2.04
4	If a store clerk gives me back extra money, I keep it.	D1-3.97 AS-3.98	D2-3.93 AT-3.71
5	The best job pays the most.	D1-3.48 AS-3.35	D2-3.34 AT-4.08
6	Five activities I must be able to do successfully in life are: work at a job, be a family member, be able to enjoy life, be a good citizen, and be a good person.	D1-1.63 AS-1.63	D2-1.66 AT-1.79
7	In our class I have learned to make wise decisions.	D1-2.14 AS-2.24	D2-2.30 AT-2.00
8	It is important to understand what work means to me.	D1-1.56 AS-1.52	D2-1.51 AT-1.75
9	My parents know what I'm learning in school.	D1-2.08 AS-2.11	D2-2.17 AT-2.25
10	Career education is for everyone.	D1-2.51 AS-2.38	D2-2.19 AT-2.08
11	I like myself.	D1-1.94 AS-1.94	D2-1.91 AT-1.74
12	I understand what a "life role" is.	D1-3.17 AS-3.07	D2-2.88 AT-2.46
13	I am learning how I will fit into the life of the community as an adult.	D1-2.43 AS-2.47	D2-2.45 AT-2.08
14	School should do much more than help us select a career.	D1-1.93 AS-2.01	D2-2.05 AT-1.11
15	I plan to have the same job my mother or father has.	D1-3.78 AS-3.80	D2-3.74 AT-3.25
16	My abilities aren't suited for some kinds of jobs.	D1-2.26 AS-2.34	D2-2.32 AT-1.71
17	This year I have kept a journal or diary of my daily activities.	D1-4.09 AS-4.08	D2-4.03 AT-3.88

Table 5. (Continued)

Variable Number	Statement	Means	
		All Personnel, Dist. 1 All Students, Dist. 1, 2	All Personnel, Dist. 2 All Teachers, Dist. 1, 2
18	We have learned what interests and abilities are needed for various jobs.	D1-2.59 AS-2.50	D2-2.47 AT-2.63
19	Career education is a part of every subject.	D1-2.66 AS-2.63	D2-2.50 AT-2.08
20	In school I am learning how to solve problems.	D1-1.88 AS-1.85	D2-1.80 AT-1.71
21	A good future means going to college for four years.	D1-2.78 AS-2.73	D2-2.83 AT-3.71
22	What I learn in school is very useful outside of school.	D1-1.89 AS-1.79	D2-1.76 AT-2.17
23	We have had many outside speakers visit our class.	D1-2.79 AS-2.76	D2-2.86 AT-3.54
24	I have learned something about at least 20 jobs.	D1-3.22 AS-3.17	D2-3.11 AT-3.08
25	Clusters are not important to career education.	D1-3.07 AS-3.12	D2-3.16 AT-3.08
26	Whenever a person leaves school, he should be prepared to get a job and to do it well.	D1-1.78 AS-1.73	D2-1.77 AT-2.25
27	School subjects are important for understanding work.	D1-1.88 AS-1.76	D2-1.73 AT-2.29
28	The most important career is the one that pays you a living.	D1-2.52 AS-2.34	D2-2.34 AT-3.54
29	My teacher seems interested in teaching about careers.	D1-2.63 AS-2.66	D2-2.64 AT-2.38
30	In school I have learned something about money.	D1-1.95 AS-2.10	D2-2.18 AT-1.63
31	In school I have learned something about taxes.	D1-2.95 AS-3.10	D2-3.15 AT-2.50
32	In school I have learned something about the use of leisure time.	D1-2.48 AS-2.61	D2-2.16 AT-1.83
33	In school I have learned something about music, art, and literature.	D1-1.80 AS-1.78	D2-1.74 AT-1.67
34	In school I have learned something about getting along with others.	D1-1.57 AS-1.57	D2-1.56 AT-1.54

Table 5. (Continued)

Variable Number	Statement	Means	
		All Personnel, Dist. 1 All Students, Dist. 1, 2	All Personnel, Dist. 2 All Teachers, Dist. 1, 2
35	My teacher has taught me something about family life.	D1-3.07 AS-2.80	D2-2.38 AT-1.83
36	My teacher has taught me something about telling right from wrong.	D1-1.80 AT-1.83	D2-1.81 AT-1.58
37	My teacher helps me learn more about me.	D1-2.54 AT-2.54	D2-2.41 AT-1.75
38	It is important that I be able to appreciate myself.	D1-2.03 AS-2.02	D2-1.93 AT-1.54
39	Someday I would like to be a father or mother.	D1-2.04 AS-2.07	D2-2.10 AT-2.04
40	I would like to earn a living by having a steady job.	D1-1.69 AS-1.62	D2-1.61 AT-2.04
41	I look forward to becoming a grown-up.	D1-1.96 AS-1.88	D2-1.80 AT-1.92
42	The main job of the school is to prepare people for living a useful enjoyable life.	D1-1.96 AS-1.86	D2-1.70 AT-1.50
43	Our classrooms have pictures, books, tools, etc. to help us understand careers.	D1-2.53 AS-2.54	D2-2.48 AT-2.04
44	I understand what kinds of occupations exist in my local community.	D1-2.52 AS-2.48	D2-2.43 AT-2.38
45	In school we have spent time learning how to buy things we need or would like to have.	D1-3.03 AS-3.02	D2-2.95 AT-2.58
46	School subjects are taught by showing how they are important in different jobs or careers.	D1-2.70 AS-2.62	D2-2.55 AT-2.67
47	My teachers are helping me to appreciate the beauty of life and our surroundings.	D1-2.26 AS-2.27	D2-2.25 AT-2.08
48	I would like to be well-known for my work.	D1-1.92 AS-1.96	D2-2.07 AT-2.38
49	All school work should help prepare me for a job.	D1-2.16 AS-2.13	D2-2.26 AT-3.21
50	It is important that I understand how to use my spare time.	D1-1.51 AS-1.59	D2-1.67 AT-1.58
51	"Careers" means the things we must do such as work at a job, raise a family, help our community, and live a useful, good, and enjoyable life.	D1-1.90 AS-1.85	D2-1.82 AT-2.00

Table 5. (Continued)

Variable Number	Statement	Means	
		All Personnel, Dist. 1 All Students, Dist. 1, 2	All Personnel, Dist. 2 All Teachers, Dist. 1, 2
52	In our classroom we spend as much time learning about jobs and raising a family as we do studying history or math.	D1-3, 64 AS-3, 59	D2-3, 59 AT-3, 88
53	We work with our hands and make things at our school.	D1-1, 97 AS-2, 05	D2-2, 11 AT-2, 00
54	I spend some time each school day learning about different jobs.	D1-3, 47 AS-3, 41	D2-3, 37 AT-3, 50
55	You don't have to go to college to prepare for most jobs.	D1-3, 22 AS-3, 24	D2-3, 11 AT-2, 29
56	Careers means only the job one will do for money.	D1-3, 63 AS-3, 58	D2-3, 59 AT-4, 00
57	I should know a lot about myself and how I feel.	D1-1, 59 AS-1, 58	D2-1, 59 AS-1, 71
58	Teaching is a service occupation	D1-2, 29 AS-2, 28	D2-2, 20 AS-1, 88
59	I have used the elementary school counselor to get career information.	D1-3, 61 AS-3, 55	D2-3, 47 AT-3, 38
60	I have taken three or more field trips this year.	D1-3, 29 AS-3, 79	D2-4, 19 AT-3, 13

Table 6. Differences in Responses between District x Students/ Teachers (Interaction Effect Differences)

Variable Number	Statement	District x ST/ Teachers MS		Computed F	Tabular F
		All Pers. Dist. 1 (D1)	All Pers. Dist. 2(D2)*		
		All St. Dist. 1, 2(AS)	All Te. Dist. 1, 2(AT)		
3	I know enough to get at least one grown-up job.	D1-2.66 AS-2.89	D2-2.58 AT-1.50	6.26	3.89
24	I have learned something about at least 20 jobs.	D1-3.18 AS-3.16	D2-3.67 AT-2.50	5.10	3.89
44	I understand what kind of occupations exist in my local community.	D1-2.49 AS-2.47	D2-2.83 AT-1.92	4.07	3.89
59	I have used the elementary school counselor to get career information.	D1-3.50 AS-3.60	D2-4.83 AT-1.92	31.10	3.89

* District 1 = Non-career education district
 District 2 = Career education district

Table 7. Results of Two-Way Analysis of Variance: Interaction Effect Differences

Variable	Computed F	Hypothesis*	Variable	Computed F	Hypothesis*
1	.29	Retain	31	1.65	Retain
2	1.15	"	32	1.08	"
3	6.26	Reject	33	.08	"
4	3.02	Retain	34	.04	"
5	2.50	"	35	.07	"
6	.02	"	36	.22	"
7	.64	"	37	.20	"
8	.02	"	38	1.45	"
9	.33	"	40	2.55	"
10	.50	"	41	.17	"
11	.28	"	42	.56	"
12	1.01	"	43	1.26	"
13	.75	"	44	4.07	Reject
14	2.34	"	45	.72	Retain
15	.19	"	46	1.37	"
16	.43	"	47	.49	"
17	.15	"	48	.30	"
18	3.33	"	50	1.20	"
19	.13	"	51	.04	"
20	.16	"	52	.58	"
21	.13	"	53	.50	"
22	.88	"	54	1.64	"
23	1.04	"	55	.08	"
24	5.10	Reject	56	2.54	"
25	3.12	Retain	57	3.64	"
26	2.76	"	58	.17	"
27	.41	"	59	31.10	Reject
28	2.38	"	60	.08	Retain
29	.95	"			
30	.12	"			

*The level of significance was .05 percent, $\alpha = .05$. The Tabular F was 3.89.

Table 8. Variability of Responses

Variable Number	(D2) Dist. 1	(D1) Dist. 1	(AT) All Teachers	(AS) All Students
1	0.66	0.92	0.77	0.90
2	0.86	0.96	0.95	1.15
3	0.90	1.21	0.90	1.29
4	1.05	1.42	0.93	1.44
5	0.75	1.31	0.79	1.37
6	0.62	0.96	0.57	1.01
7	0.51	1.00	0.51	1.12
8	0.62	0.78	0.45	0.81
9	0.66	1.03	1.08	1.13
10	0.90	1.15	0.66	1.20
11	0.66	1.05	0.49	1.10
12	1.02	1.12	0.99	1.19
13	0.45	0.95	0.79	1.12
14	0.60	1.11	0.66	1.26
15	1.11	1.21	0.98	1.23
16	0.57	1.21	1.16	1.19
17	1.04	1.21	0.96	1.27
18	0.99	1.06	0.57	1.20
19	0.90	1.17	0.79	1.20
20	0.38	1.07	0.51	1.10
21	0.90	1.42	0.83	1.41
22	0.79	1.03	0.90	0.99
23	0.86	1.11	1.30	1.30
24	1.15	1.17	1.16	1.21
25	0.62	0.75	0.79	0.89
26	0.51	1.02	0.99	1.07
27	0.96	0.99	0.77	0.82
28	0.96	1.33	0.93	1.22
29	0.99	0.99	0.71	1.26
30	0.51	1.02	0.49	1.27
31	0.90	1.19	1.08	1.33
32	0.85	1.07	0.49	1.25
33	0.45	0.95	0.51	0.89
34	0.51	0.97	0.67	0.93
35	0.62	1.30	0.51	1.42
36	0.49	0.93	0.52	1.00
37	0.66	1.17	0.66	1.26
38	0.71	1.02	0.45	1.05
39	0.66	1.28	0.65	1.37
40	0.65	0.90	0.86	0.88

Table 8. (Continued)

Variable Number	(D2) Dist. 1	(D1) Dist. 1	(AT) All Teachers	(AS) All Students
41	0.66	1.14	0.75	1.05
42	0.52	0.98	0.67	0.84
43	0.65	1.23	0.62	1.27
44	0.83	1.02	0.51	1.10
45	1.11	1.21	1.07	1.34
46	0.85	1.07	0.88	1.20
47	0.75	1.14	0.66	1.24
48	0.66	1.02	0.88	1.19
49	1.35	1.17	1.26	1.15
50	0.49	0.76	0.67	0.80
51	0.66	1.05	1.31	1.06
52	0.90	1.22	0.98	1.26
53	0.99	1.10	0.90	1.11
54	0.71	1.07	1.02	1.22
55	0.90	1.31	0.93	1.31
56	0.88	1.18	0.49	1.14
57	0.85	0.74	0.51	0.82
58	0.83	1.07	1.08	1.11
59	0.38	1.17	1.24	1.40
60	1.42	1.54	1.44	1.24

Table 9. Student and Teacher Mean Response to All Variables.

Variable Number	Students, Dist. 1	Teachers, Dist. 1	Students, Dist. 2	Teachers, Dist. 2
1	1.90	1.91	1.85	1.66
2	2.62	2.25	2.85	2.00
3	2.65	2.58	2.88	1.50
4	4.03	3.25	3.91	4.16
5	3.45	3.75	3.24	4.41
6	1.62	1.75	1.64	1.83
7	2.14	2.08	2.32	1.91
8	1.54	1.75	1.49	1.75
9	2.07	2.08	2.15	2.41
10	2.55	2.08	2.20	2.08
11	1.94	1.91	1.92	1.66
12	3.20	2.83	2.94	2.08
13	2.45	2.25	2.49	1.91
14	1.92	2.00	2.10	1.41
15	3.82	3.16	3.77	3.33
16	2.30	1.83	2.37	1.58
17	4.10	4.00	4.05	3.75
18	2.54	3.08	2.49	2.16
19	2.71	2.08	2.53	2.08
20	1.88	1.83	1.81	1.58
21	2.70	3.58	2.74	3.83
22	1.84	2.41	1.74	1.91
23	2.70	3.75	2.81	3.33
24	3.17	3.66	3.15	2.50
25	3.09	2.75	3.14	3.41
26	1.76	1.91	1.70	2.58
27	1.84	2.25	1.67	2.33
28	2.45	3.25	2.21	3.83
29	2.63	2.58	2.68	2.16
30	1.97	1.58	2.22	1.66
31	3.02	2.08	3.17	2.91
32	2.52	2.00	2.69	1.66
33	1.80	1.75	1.75	1.58
34	1.57	1.58	1.56	1.50
35	3.14	2.25	2.45	1.41
36	1.81	1.66	1.83	1.50
37	2.59	1.91	2.48	1.58
38	2.05	1.83	1.98	1.25
39	2.00	2.41	2.13	1.66

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The analysis of the data constitutes the major part of the summary. The conclusions present the investigator's insights, given the survey results, the experience of doing the survey, and the examination of the literature. The recommendations are intended to suggest possible future actions to eliminate certain frustrations encountered in this study and to expand upon the findings with future studies.

An analysis of the data showed that:

1. The mean score difference between all students and all teachers indicates that for 20 variables there is a critical significance difference; consequently, the hypothesis (H_2) was rejected for one-third of the items.
2. The standard deviations or variability of responses were consistently smaller for the two teacher groups and larger for the two student groups.
3. The personnel groups disagreed on career education concepts and practices as identified by experts four to one over the school groups. The critical significance level was reached on a total of 27 of the 60 variables.
4. The career education district student means favored the identified career education concepts and practices for 32

of the variables, and the non-career education district favored them for 28 of the 60 variables.

5. For 47 of the 60 variables, the career education district teachers' mean response indicated that they favored the career education concepts and practices. Four variables showed an identical mean response for both teacher groups, and the non-career district teachers were in more agreement for career education than was shown by the career education district for nine variables.
6. An interaction effect of critical significance was found for four variables, two of which were ordinal and two disordinal. The inconsistency of response means the assumption of the main effect is invalid.
7. Of 19 variables identified as job related, the student means from both districts were consistently similar as were the standard deviations or variability of responses.

Conclusions

A review of the literature, the experience of designing and conducting the survey, and the analysis of the data provided the following conclusions:

1. Career education is one way to relate the academic and vocational aims and methods of education as a process

of helping the student to meet the life demands of family member, goods and services producer and consumer, citizen, person creating, and a person valuing and enjoying his life.

2. Students in the career education oriented district had little agreement with the teachers concerning the concepts and practices of career education as they appear in national, state, and local literature. The transfer of these concepts and practices from the teachers to the students and the valuing of them by the students is inconclusive as shown by the data.
3. The teachers in the career education district indicated that they shared concepts and practices of career education that were in basic agreement with the literature to a far greater degree than did the non-career education district sixth grade teachers.
4. There is little difference between the career and non-career education district students' mean responses in terms of career education understanding or preference as presented by their answers to the survey instrument.
5. The most significant aspect of this project was to meet and work with many different people on a project that

had to grow out of the many developing personal relationships for the purpose of the study.

Recommendations

From the joys, frustrations and insights which came with the evaluation of the study, the following recommendations are made:

1. This or a similar comparative study should be made between other career and non-career oriented elementary, junior, and senior high school districts. It should be noted that the career education district of this study is committed to a multi-dimensional careers emphasis and other career education districts may not be.
2. Prospective teachers should know career education and the methods for implementing it in the classroom, given the national interest in career education.
3. There is a need for more studies on methods of implementing career education into the existing school curriculums.
4. The societal value "pegging" of jobs should be critically examined in elementary school.
5. The non-school resources of the community should be brought into the career education scene much more extensively than is presently being done.

6. Curriculum planning is recommended around careers objectives that must be met if students are to survive and prosper within traditional American values in what is becoming a more complicated and in many ways more challenging world.

Green (1973) emphasizes this same point. No educational scheme, he says, ". . . can be regarded as successful if it fails to prepare the young to take authentic and responsible roles within adult society."

BIBLIOGRAPHY

- Advisory Council on Vocational Education. Vocational education: the bridge between man and his work. Publication 1. Highlights and recommendations from the general report of the Advisory Council on Vocational Education. 1968. ED 045 474. 8 p.
- Baker, John H. Five jobs that I have. Presentation given to a second grade class, Silverton, Oregon. March 30, 1973.
- Behavioral objectives for guidance and counseling. Paper developed for clarifying career education objectives by Oregon State University, Springfield Schools, and the State Department of Education, Corvallis, Oregon. July 1971.
- Bergstrom, Howard E. Job performance of young workers in relation to school background, a pilot approach toward using the job environment in evaluating both general and vocational education. Educational Research and Development Council of the Twin Cities Metropolitan Area. April 20, 1966. VT 000 457. 217 p.
- Berman, Louise M. New priorities in the curriculum. Columbus, Ohio, Merrill, 1978. p. 1-2.
- Bolles, Richard M. Career education: threat or promise? Paper began as a dialogue process as a cooperative project through the office of Campus Ministry with Community Colleges in Southern California. Los Angeles, California. 1972.
- Career awareness program. American Vocational Journal 48:20. March 1973. (Advertisement)
- Career education: the Oregon way. Salem, Oregon, Oregon Board of Education. July 1972.
- Career education prospectus. Bloomington, Illinois, National Instructional Television Center. 1973. 56 p.
- The comprehensive career education concept. Paper developed to explain the Oregon career education concept by the State Department of Education, Salem, Oregon, March 15, 1973.

- Contributed career awareness experiences grades 1-6. List of class activities for in-service information, Springfield, Oregon. June 28, 1971.
- Courtney, Wayne E. and Lorry K. Sedgwick. Nominal scale data. Palo Alto, California, Science Research Associates, 1972. 12 p.
- Crowdson, Alex. Who am I, where am I going, and how do I get there? a guideline for career awareness. Olympia, Washington, Washington State Coordinating Council for Occupational Education. September 1971. 28 p.
- Deinlio, Anthony M. and James M. Young. Career education in the elementary school. Phi Delta Kappan 54:378-380. 1973.
- Dewey, John. Democracy and education. New York, New York, Macmillan, 1931. 434 p.
- Dobrovolny, Jerry S. Let's get on with career education. Industrial Arts and Vocational Education 61:74-75. April 1972.
- Drier, Harry N., Jr. Career development activities permeate Wisconsin curriculum. American Vocational Journal 47:39-41. March 1972.
- The educational index. New York, New York, Wilson, July 1971-June 1972.
- Evans, Rupert N. and Gordon McCloskey. Rationale for career education. Journal of Industrial Education 10:6-17. Winter 1973.
- Fever, Jack C. Career education and the adult educator. Adult Leadership 21:165-168. November 1972.
- Fry, Edward B. Reading instruction for classroom and clinic. New York, New York, McGraw-Hill, 1972. 472 p.
- Fulton, Barbara J. Career development of children. In: Developing careers in the elementary school, ed. by Norman C. Gysbers, Wilbur Miller and Earl Moore, Columbus, Ohio, Merrill, 1973. p. 87-94.

- Gardner, Richard. Coordinator, Career Education Projects, Oregon State University, Div. of Vocational, Adult, and Community College. Personal communication. Corvallis, Oregon. January 9, 1973.
- Goldhammer, Keith. A careers curriculum. In: Career education: perspective and promise, ed. by Keith Goldhammer and Robert E. Taylor, Columbus, Ohio, Merrill, 1972. p. 121-167.
- Goldhammer, Keith and Robert E. Taylor. Career education: perspective and promise, Columbus, Ohio, Merrill, 1972. 296 p.
- Green, Thomas F. Career education and the pathologies of work. In: Essays on career education, ed. by Larry McClure and Carolyn Buan, Portland, Oregon. Northwest Regional Education Laboratory, 1973. p. VII-XI.
- Hedrich, Vivian. Seattle's concentration on careers. American Education 7:12-15. July 1971.
- Heilman, Cas F. Careers oriented relevant education. Paper written for in-service teachers, Springfield, Oregon. April 1, 1971.
- Herr, Edwin L. Contributions of career development to career education. Journal of Industrial Education 9:5-13. Spring 1972b.
- Herr, Edwin L. Unifying an entire system of education around a career development theme. In: Career education: perspective and promise, ed. by Keith Goldhammer and Robert E. Taylor, Columbus, Ohio, Merrill, 1972a. p. 63-104.
- A highway to work and play. Bloomington, Illinois, McKnight, 1973. (Six career awareness packets, grades, levels one through six)
- Holcomb, Alvin H. Developing career education materials for teachers. Agriculture Education 45:152-153. 1973.
- Hoyt, Kenneth B., et al. Career education: what is it and how to do it. Salt Lake City, Utah, Olympus, 1972. 190 p.
- Karp, William. Comics make the job scene. Training in Business and Industry 10:28-30. June 1970.

- Keller, Louise J. Career development--an integrated curriculum approach, K-12. In: Career education: perspective and promise, ed. by Keith Goldhammer and Robert E. Taylor, Columbus, Ohio, Merrill, 1972. p. 185-208.
- Koos, Leonard V. The questionnaire in education. New York, New York, Macmillan, 1928. 178 p.
- Linson, M. G., James W. Wilson and M. G. Hunt. Is articulation possible? American Vocational Journal 46:29-31. October 1971.
- Luchins, A. S. Influences of experiences with conflicting information. Journal of Social Psychology 51:367-385. 1960.
- Lyons, Rhee. Vocational development and the elementary school. In: Developing careers in the elementary school, ed. by Norman Gysbers, Wilbur Miller, and Earl J. Moore. Columbus, Ohio, Merrill, 1973. p. 44-54.
- Mannebach, Alfred J. Career education in the elementary. Agricultural Education 45:154-155. January 1973.
- Marland, Sidney P., Jr. Career education: every student headed for a goal. American Vocational Journal 47:34-36. March 1972b.
- Marland, Sidney P., Jr. Career education now. In: Career education: perspective and promise, ed. by Keith Goldhammer and Robert E. Taylor, Columbus, Ohio, Merrill, 1972a. p. 33-41.
- Marland, Sidney P., Jr. Career education--what is it? Weekly Reader 41:1. March 1, 1972d.
- Marland, Sidney P., Jr. Forward. In: Essays on career education, ed. by Larry McClure and Carolyn Buan, Portland, Oregon, Northwest Regional Education Laboratory, 1973. p. 207-218.
- Marland, Sidney P., Jr. Marland spells out definition for career education. Speech to the 33rd Session of the International Conference on Education, Geneva, Switzerland, September 1971.

- Marland, Sidney P., Jr. Meeting our enemies: career education and the humanities. Paper read before the conference on English Education, Minneapolis, Minnesota, November 24, 1972c.
- Miller, Harry L. Liberal orientations for vocational teaching. Center for the Study of Liberal Education for Adults. February 1963. ED 017 650. 18 p.
- Miller, Ray E. (Mrs.) Recorder. Barriers to effective career education. Compact 6:32. August 1972.
- Moore, Marianne. Selected poems. New York, New York, Macmillan, 1935. 126 p.
- Moore, William. Administrative needs and problems in the installation of career education programs. A paper prepared for the National Conference on Career Education, Columbus, Ohio. May 7, 8, 9, 1972.
- National Association of State Directors of Vocational Education. Position paper on career education presented at the annual meeting, Las Vegas, Nevada. September 1971.
- Oregon's career education story. In: 1972 Annual Evaluation Report--Oregon Governor's Advisory Council for Career Education, ed. by Gene Harper McIntyre. Salem, Oregon, State Printing Office. 1972. 47 p.
- A program of career development in Portland public schools. Portland, Oregon, Portland Public Schools. June 1971. 8 p.
- Putnam, John Fay and Dale W. Chismore. State educational records and report series handbook, No. 6. Washington National Center for Educational Statistics, Washington, D. C., 1970. 319 p.
- Rammes, Robert. Career motivation K-6. Dayton, Ohio, Dayton Public Schools, 1972. 8 p.
- Remmers, H. H., N. L. Gage and J. Francis Rummel. A practical introduction to measurement and evaluation. New York, New York, Harper, 1960. 370 p.

- Reynolds, Robert W., et al. Guiding children through the social studies. Washington, D. C., National Educational Association. 1964. ED 044 317. 41 p.
- Rhodes, James A. Vocational education and guidance: a system for the seventies. Columbus, Ohio, Merrill, 1970. 163 p.
- Roberts, Roy W. Vocational and practical arts education. New York, New York, Harper, 1971. 500 p.
- Smith, George N. Problems in the organization and administration of career education programs. Paper prepared for the National Conference on Career Education for Professors of Educational Administration, Columbus, Ohio. May 7, 8, 9, 1972.
- Smith, Joseph Richard. Validation of the objectives of public school adult education. Los Angeles, California, California University. June, 1966. ED 017 808. 133 p.
- Stick your neck out. . . and try 70 suggested classroom activities for occupational exploration. Paper disseminated for classroom use by Project EVE-Northwest Educational Cooperative. Arlington Heights, Illinois. [1972].
- Super, Donald E. A theory of vocational development. *The American Psychologist* 8:185-190. 1953.
- Swanson, Gordon I. Career education. In: *Career education: perspective and promise*, ed. by Keith Goldhammer and Robert E. Taylor, Columbus, Ohio, Merrill, 1972. p. 107-119.
- Sylwester, Robert and Esther Matthews. Peacemaker, plumber, poet, drummer? *Instructor* 81:45-56. February 1972.
- Task force report on career education. *American Vocational Journal* 47:12-15. January 1972.
- Taylor, Robert E. Career education. Paper presented to the Oregon Association of School Administrators, Corvallis, Oregon, March 30, 1972.
- Tennyson, Wesley W. and Lawrence P. Monnens. The world of work through elementary readers. In: *Developing careers in the elementary school*, ed. by Norman C. Gysbers, Wilbur Miller,

- and Earl J. Moore, Columbus, Ohio, Merrill, 1973. p. 63-69.
- TenPas, Henry. Director, Oregon State University, Division of Vocational, Adult, and Community Education. A letter. Corvallis, Oregon, January 8, 1973.
- Tilton, Jack. Career education: career awareness (K-6). In: Career education: perspective and promise, ed. by Keith Goldhammer and Robert E. Taylor, Columbus, Ohio, Merrill, 1972. p. 211-226.
- Troftgruben, Hartley and Charles Crone. Self-study career education program. Paper reporting the results of self-study, Springfield, Oregon, October 11, 1971.
- Venn, Grant. Man, education and work. Washington, D. C., American Council of Education, 1964. 184 p.
- Vlaanderen, Russell B. and Arthur P. Ludka. Evaluating education in a changing society. In: Emerging state responsibilities for education, ed. by Edgar L. Morphet and David L. Jesser, Denver, Colorado, Improving state leadership in education, 1970. p. 137-157.
- Wells, Carl E. Will vocational education survive? Phi Delta Kappan 54:369. 1973.
- Whitehead, Alfred North. The aims of education and other essays. London, England, Williams and Norgate Ltd, 1932. 248 p.
- Worthington, Robert M. A U. S. Office of Education view of career education. Journal of Industrial Teacher Education 10:18-24. Winter 1973.
- Worthington, Robert M. Why career education? School Shop 31: 37-39. March 1972.
- Yevtushenko, Yevgeny Alexandrovich. Yevtushenko selected poems. Baltimore, Maryland, Penguin, 1968. 92 p.
- Zaccaria, Joseph. Guidance monograph series IV: career information and development. Boston, Massachusetts, Houghton Mifflin, 1970. 88 p.

APPENDICES

APPENDIX A

A STUDY TO COMPARE
STUDENT AND TEACHER RESPONSES
CONCERNING CAREER
EDUCATION

A RESEARCH PROJECT

DIVISION OF VOCATIONAL, ADULT, AND
COMMUNITY COLLEGE EDUCATION
OREGON STATE UNIVERSITY

John Harvard Baker, Research Associate

TEACHER-STUDENT QUESTIONNAIRE

A Comparison of Attitudes of Students and Teachers about Career Education

INSTRUCTIONS FOR COMPLETING THIS QUESTIONNAIRE

The following questionnaire will ask for your opinion about 60 statements. ANSWER EVERY QUESTION. There are no right or wrong answers.

CIRCLE THE ANSWER WHICH BEST SHOWS HOW YOU FEEL ABOUT EACH STATEMENT.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Example 1: I know how to apply for an adult job.	1	2	3	4	5
If you think you do know how, then you would circle #1, Strongly Agree:	1	2	3	4	5
If you are not sure about applying for an adult job, then circle #3, Uncertain:	1	2	3	4	5
If you're fairly sure that you don't know how, then you would answer #4, Disagree:	1	2	3	4	5
Example 2: Nursing is a service occupation.	1	2	3	4	5
Maybe you are not sure. Circle #3.	1	2	3	4	5
Example 3: My mother's job is more interesting to me than my father's.	1	2	3	4	5
Circle the # which best shows how you feel about Example 3.					
Remember that the more you Agree with a statement the lower the number:	1	2	3	4	5
The more you Disagree the higher the number:	1	2	3	4	5

If there is anything you do not understand about completing the questionnaire, please ask for help. This is not a race. Take your time and answer carefully. Circle any words you do not understand, but be sure to answer every question.

PLEASE BEGIN--You have as much time as you need.

Teachers: Please see next page for additional instructions

TEACHER'S ADDITIONAL INSTRUCTIONS

By necessity, the language of this questionnaire meets the reading ability of sixth graders. Given the design of this study, it is critical that students and teachers take the same questionnaire. THEREFORE, in many of the statements you must substitute in YOUR ROLE AS A TEACHER for the student's role. For example, statement No. 25 reads: "There are some jobs I wouldn't be able to do." YOU might rephrase the question in your mind: "I have helped the students to see that each has abilities and limitations for various jobs."

Example 2:

Question 44: I understand what kinds of occupations exist in my local community.

You might say

Question 44: I have helped students understand what kinds of occupations exist in the local community.

Example 3:

Question 48: I would like to be well-known for my work.

You might say

Question 48: I have helped students appreciate recognition for a job well-done.

APPENDIX A

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
	1	2	3	4	5
1. I know the kind of work I like to do.	1	2	3	4	5
2. I have learned about the responsibilities of being a parent.	1	2	3	4	5
3. I know enough to get at least one grown-up job.	1	2	3	4	5
4. If a store clerk gives me back extra money, I keep it.	1	2	3	4	5
5. The best job pays the most.	1	2	3	4	5
6. Five activities I must be able to do successfully in life are: work at a job, be a family member, be able to enjoy life, be a good citizen, and be a good person.	1	2	3	4	5
7. In our class I have learned to make wise decisions.	1	2	3	4	5
8. It is important that I understand what work means to me.	1	2	3	4	5
9. My parents know what I'm learning in school.	1	2	3	4	5
10. Career education is for everyone.	1	2	3	4	5
11. I like myself.	1	2	3	4	5
12. I understand what a "life role" is.	1	2	3	4	5
13. I am learning how I will fit into the life of the community as an adult.	1	2	3	4	5
14. School should do much more than help us select a career.	1	2	3	4	5
15. I plan to have the same job my mother or father has.	1	2	3	4	5
16. My abilities aren't suited for some kinds of jobs.	1	2	3	4	5
17. This year I have kept a journal or diary of my daily activities.	1	2	3	4	5
18. We have learned what interests and abilities are needed for various jobs.	1	2	3	4	5
19. Career education is a part of every subject.	1	2	3	4	5
20. In school I am learning how to solve problems.	1	2	3	4	5

21. A good future means going to college for four years.
 22. What I learn in school is very useful outside of school.
 23. We have had many outside speakers visit our class.
 24. I have learned something about at least 20 jobs.
 25. Clusters are not important to career education.
 26. Whenever a person leaves school, he should be prepared to get a job and do it well.
 27. School subjects are important for understanding work.
 28. The most important career is the one that pays you a living.
 29. My teacher seems interested in teaching about careers.
- In school I have learned something:
30. about money
 31. about taxes
 32. about use of leisure time
 33. about music, art, and literature
 34. about getting along with others
- My teacher has taught me something:
35. about family life
 36. about telling right from wrong
 37. My teacher helps me learn more about me.
 38. It is important that I be able to appreciate myself.
 39. Someday I would like to be a father or mother.
 40. I would like to earn a living by having a steady job.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
	1	2	3	4	5
21. A good future means going to college for four years.	1	2	3	4	5
22. What I learn in school is very useful outside of school.	1	2	3	4	5
23. We have had many outside speakers visit our class.	1	2	3	4	5
24. I have learned something about at least 20 jobs.	1	2	3	4	5
25. Clusters are not important to career education.	1	2	3	4	5
26. Whenever a person leaves school, he should be prepared to get a job and do it well.	1	2	3	4	5
27. School subjects are important for understanding work.	1	2	3	4	5
28. The most important career is the one that pays you a living.	1	2	3	4	5
29. My teacher seems interested in teaching about careers.	1	2	3	4	5
In school I have learned something:	1	2	3	4	5
30. about money	1	2	3	4	5
31. about taxes	1	2	3	4	5
32. about use of leisure time	1	2	3	4	5
33. about music, art, and literature	1	2	3	4	5
34. about getting along with others	1	2	3	4	5
My teacher has taught me something:	1	2	3	4	5
35. about family life	1	2	3	4	5
36. about telling right from wrong	1	2	3	4	5
37. My teacher helps me learn more about me.	1	2	3	4	5
38. It is important that I be able to appreciate myself.	1	2	3	4	5
39. Someday I would like to be a father or mother.	1	2	3	4	5
40. I would like to earn a living by having a steady job.	1	2	3	4	5

APPENDIX A

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
41. I look forward to becoming a grown-up.	1	2	3	4	5
42. The main job of the school is to prepare people for living a useful enjoyable life.	1	2	3	4	5
43. Our classrooms have pictures, books, tools, etc., to help us understand careers.	1	2	3	4	5
44. I understand what kinds of occupations exist in my local community.	1	2	3	4	5
45. In school we have spent time learning how to buy things we need or would like to have.	1	2	3	4	5
46. School subjects are taught by showing how they are important in different jobs or careers.	1	2	3	4	5
47. My teachers are helping me to appreciate the beauty of life and our surroundings.	1	2	3	4	5
48. I would like to be well-known for my work.	1	2	3	4	5
49. All school work should help prepare me for a job.	1	2	3	4	5
50. It is important that I understand how to use my spare time.	1	2	3	4	5
51. "Careers" means the things we must do such as work at a job, raise a family, help our community and live a useful, good, and enjoyable life.	1	2	3	4	5
52. In our classroom we spend as much time learning about jobs and raising a family as we do studying history or math.	1	2	3	4	5
53. We work with our hands and make things at our school.	1	2	3	4	5
54. I spend some time each school day learning about different jobs.	1	2	3	4	5
55. You don't have to go to college to prepare for most jobs.	1	2	3	4	5
56. Careers means only the job one will do for money.	1	2	3	4	5
57. I should know a lot about myself and how I feel.	1	2	3	4	5
58. Teaching is a service occupation.	1	2	3	4	5

59. I have used the elementary school counselor to get career information.
60. I have taken three or more field trips this year.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
1	2	3	4	5
1	2	3	4	5

PLEASE BE SURE TO ANSWER THE FOLLOWING QUESTIONS:

TEACHERS (answer below)

STUDENTS (answer below)

Check: <input type="checkbox"/> male <input type="checkbox"/> female Age _____ Job description _____ Years of teaching experience _____ Years taught in this school _____ Other occupations of one year or more: _____ Major, life-long occupation of: Mother _____ Father _____ Guardian _____ Highest Degree: <input type="checkbox"/> B. S. ; <input type="checkbox"/> Master; <input type="checkbox"/> Doctor I have had Career Awareness training: <input type="checkbox"/> yes; if "yes", what was the training? _____ <input type="checkbox"/> no _____ Name of your School _____	Check: <input type="checkbox"/> male <input type="checkbox"/> female Age _____ How many years have you attended this school? _____ Occupation of Mother _____ Father _____ Guardian _____ My feelings about school are: (check one) <input type="checkbox"/> I like it a great deal <input type="checkbox"/> I like it sometimes <input type="checkbox"/> I don't know <input type="checkbox"/> Usually I don't like it <input type="checkbox"/> I don't like school at all How many schools have you attended since kindergarten or the first grade? _____ When I finish school I plan to be a _____ Name of your School _____
--	---

NOW LIST AS MANY OCCUPATIONS AS YOU CAN

- | | | |
|----|-----|-----|
| 1. | 8. | 15. |
| 2. | 9. | 16. |
| 3. | 10. | 17. |
| 4. | 11. | 18. |
| 5. | 12. | 19. |
| 6. | 13. | 20. |
| 7. | 14. | 21. |

(For mailing please see back of this page)

-----fold here for mailing-----

Return to: John H. Baker
Division of Vocational Adult and
Community College Education
102 Batcheller Hall
Oregon State University
Corvallis, Oregon 97331

staple or tape

OREGON STATE UNIVERSITY
School of Education
Corvallis, Oregon 97331

December 18, 1972

Howard Bay
Curriculum Director
Hillsboro Elementary District #7
512 N. E. 3rd Avenue
Hillsboro, Oregon 97113

Dear Howard Bay:

I am requesting permission from your district to offer a questionnaire to your sixth grade students and the 6th grade teachers in your district. The questionnaire will take no more than thirty minutes and should be worth the time.

The question I face is: Does Career Education make a difference in terms of learning outcomes through method, materials, and philosophy?

Frankly, I have no biases. I need schools that haven't swallowed the whole career(s) education bait. I need neutral schools on the question of career education.

It is my hunch that there will be very little difference in outcomes from school to school based on a career education dedication. My questionnaire will help me ascertain what difference, if any, exists and perhaps what is significant about the results.

The Washington County IED has been good enough to offer to help coordinate my study with you, if you approve my request. I am not naming any schools involved in the questionnaire, but for those districts participating, I will share the results and possible implications of the study by sending you the completed dissertation.

If you tentatively approve, the complete questionnaire will be mailed to you in early March for your final approval to proceed. I will certainly understand your interest in not wasting time if the questionnaire seems to have no merit. I do believe that we can collectively help resolve some pertinent issues that are at the heart of current educational thinking.

Howard Bay

December 18, 1972

My questionnaire utilizes a five point scale, asks questions of students, of teachers, and of both groups. For example:

		Don't Agree				Agree Absolutely
		1	2	3	4	5
Student	A) I am familiar with at least 20 occupations within my community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student and Faculty	B) I am able to identify all the clusters described by the Oregon Board of Education.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Faculty	C) I believe Career(s) Education to be the best foundation from which to build K-6 education.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student and Faculty	D) When I think of career, I think of the vocational life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student and Faculty	E) The basic goal of school is to prepare students for jobs, family life, citizenship, and recreational life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Of course for all kinds of reasons I hope you'll swing open the door. Whatever you decide, I appreciate your hearing my request.

Sincerely,

John H. Baker
222 Coolidge Street
Silverton, Oregon 97381

P.S. I enclose a return envelope for your response.

HILLSBORO ELEMENTARY SCHOOLS
Hillsboro, Oregon 97123

January 3, 1973

Mr. John H. Baker
222 Coolidge Street
Silverton, Oregon 97381

Dear Mr. Baker:

I received your letter of December 18, regarding your request for permission to sample our sixth grade pupils and teachers regarding career education.

At this time, I am not ready to say yes or no to your request until you have developed your complete questionnaire and have had an opportunity to review that questionnaire. The examples you stated in your letter of questions to be used seem to be rather inappropriate in some instances and I am assuming you will be doing much polishing and refining on questions.

Please forward your completed questionnaire to me as quickly as possible and at that time I will be in a position to say yes or no to your request.

Sincerely,

Howard Bay, Director
Curriculum & Instruction

HB/ds

OREGON STATE UNIVERSITY
School of Education
Corvallis, Oregon 97331

January 9, 1973

Mr. Howard Bay, Director
Curriculum and Instruction
Hillsboro Elementary Schools
512 N.E. Third
Hillsboro, Oregon 97123

Dear Mr. Bay:

Thank you for your fair conditions.

I will send you the completed questionnaire, hopefully around the first week of February. Before you see it, I will have secured feed-in from a panel of experts, and consequently should have a polished instrument. Also there will be a mini-field test before final use. I want the instrument to do its job with some precision.

I'm excited by the project, and certainly appreciate your fair response at this early date.

Sincerely yours,

John H. Baker
Research Associate

JHB:sj

January 12, 1973

Mr. Don Kimball
Assistant Superintendent
Springfield Public Schools
Mill and D Streets
Springfield, Oregon 97477

Dear Mr. Kimball:

I appreciate your initial receptivity to my study.

I have asked Henry Ten Pas to write to you in support of this study, although I know the value he places upon the project already.

You'll receive a copy of my proposal before January 19. Be sure to notice in the "Rationale for the Study" section the piece by Dick Gardner.

Thanks again for your initial accessibility. I'm looking forward to meeting you and working together to clarify and to further the cause of education.

Sincerely,

John H. Baker

JHB:sj

APPENDIX F

February 19, 1973

To:

From: John Baker
Co-op. Curr. Project
Batcheller 102

RE: Assistance for refining questionnaire to compare 6th grade students and teachers in a non-oriented career education district with an aware district on the following criteria:

- A) Broad goals and specific objectives of career ed. (Awareness)
- B) Methods for realizing those objectives and goals
- C) Outcomes for students in the cognitive, affective, and psychomotor domains.

Your name was recommended to me by Dr. TenPas as one who is involved with Dick Gardner's Committee on career education and as one with expertise for this activity.

For whatever reasons, I would be grateful for your help in order to improve this questionnaire.

Specifically, would you critique the directions and the wording of the statements in the questionnaire proper. Please rewrite any statements which you feel need a rewriting and write out any additional statements that you feel are needed in order to cover the criteria mentioned above.

For example, I think that the five degrees for the five-point scale are worded rather poorly. Question 6 seems awkward. Any suggestions? They will all be appreciated.

Thank you for your help

APPENDIX G

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February 26, 1973

To: Panel of Career Education Member (Name given)

From: John Baker

Re: Refinement of career education questionnaire

Thank you for your help in developing my questionnaire. As is true in so many things, co-operative effort seems to bring forth a better product. I realize your schedule is crowded, and I want you to know how much I appreciate both your time and expertise. I am sure that this study will reflect both.

Sincerely,

OREGON STATE UNIVERSITY

School of Education

Corvallis, Oregon 97331

February 26, 1973

Mr. Don Kimball
Assistant Superintendent
Springfield Public Schools
Mill and D Streets
Springfield, Oregon 97477

Dear Mr. Kimball:

Enclosed is the questionnaire we discussed briefly by phone in early January.

The questionnaire is designed from literature in the professional journals regarding career education, by state career education experts, by field tests with 6th grade students in two schools, and by several 6th grade (and other grades) teachers, and by countless revisions.

It is my conviction that this instrument represents career and careers education goals, methodology used and advocated for classroom presentation, and outcomes as perceived by sixth grade students and teachers in the cognitive, affective, and psychomotor domains.

My study needs a district dedicated to career(s) education. Springfield fills that requirement and has been identified and recommended as such by numerous career(s) education people in the state.

I will give the questionnaire personally to 150 sixth graders in each of two districts and 15 sixth grade teachers in each.

I will administer the same questionnaire to a district which has not yet made a commitment to career(s) education. The comparison should be helpful to determine in which specific ways career education or the lack of it develops skills, attitudes and knowledge.

I will share the results of the survey with your office, and of course, the results are held in strict confidence.

Mr. Don Kimball

The questionnaire will be in printed form and takes sixth graders an average of 15 minutes. The whole procedure is about 25-30 minutes.

The earliest decision concerning this request would be appreciated. If approved, it would be most helpful if I could administer the questionnaire the week of March 5th-9th.

I don't know the best way to make contacts within three or four schools and with the teachers to get their permission, but I'm hoping with your approval, you'll help in this category.

Dr. Ten Pas, my co-worker and overseer on this project, and I are excited with the prospects and hope for a go-ahead.

Sincerely,

John H. Baker
222 Coolidge Street
Silverton, Oregon 97381
Home phone, 873-6797
Office phone, 754-1161

JHB:cb

Enclosure

February 27, 1973

Howard Bay, Director
Curriculum & Instruction
Hillsboro Elementary Schools
512 NE Third
Hillsboro, OR

Dear Mr. Bay:

Enclosed is the questionnaire suggested briefly by letter on December 18.

The instrument is designed from literature in the professional journals regarding career education, by state career education experts, by field tests with 6th grade students in two schools, and by several 6th grade (and other grades) teachers, and by countless revisions.

It is my conviction that this instrument represents career and careers education goals, methodology used and advocated for classroom presentation, and outcomes as perceived by 6th grade students and teachers in the cognitive, affective, and psychomotor domains.

My study needs a district which has not yet committed itself to career(s) education. Hopefully, Hillsboro will fill that requirement. I will give the questionnaire personally to 150 6th graders in each of two districts and 15 6th grade teachers in each. I will administer the same questionnaire to a district which has made a commitment to career(s) education. The comparison should be helpful to determine in which specific ways career education or the lack of it develops skills, attitudes and knowledge. Another way to put the question is: Does career education on the elementary level change attitudes, skills, and knowledge as demonstrated by students and teachers?

I will share the results of the survey with your office and, of course, the results are held in strict confidence. The questionnaire will be in printed form and will take 6th graders an average of 15 minutes. The whole procedure is about 25-30 minutes for each of six or so classes.

The earliest decision regarding this request would be appreciated. If approved, it would be most helpful if I could administer the

Mr. Bay, 2/27/73

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111

questionnaire the week of March 5-9. I do not know the best way to make contacts within three or four schools and with the teachers in order to obtain their permission but I am hoping that, with your approval, you will help in this category. Dr. Ten Pas, my co-worker and overseer on this project, and I are both excited with the prospects and hope for a go-ahead.

Sincerely,

John H. Baker
222 Coolidge Street
Silverton, OR 97381
Home Phone: 873-6797
Office Phone: 754-1161

JHB/sg

Enclosure

APPENDIX J
OREGON STATE UNIVERSITY
School of Education
Corvallis, Oregon 97331

March 6, 1973

TO:

FROM: John Baker

RE: Field test for career education comparison questionnaire to be given to sixth grade students and teachers

As we discussed in the proposal meeting January 17, I'll try to give you a synopsis of what I did and what others did to the instrument in the field testing situation.

I did develop from career education literature a 60 item, five-point Likert type of scale questionnaire. Then Dr. Ten Pas and I went over the first draft in order to check it against some principles of surveying.

The next step was to fix the readability level. The Fry system readability chart pegged the level at the fifth grade. Dr. Ken Ahrendt, a reading specialist here at the University, verified the readability and assisted in the improvement of the questionnaire instruction section.

Then the instrument was sent to five men designated by my advisor as career education specialists. They examined and recommended. The recommendations often hit the same spots of vulnerability.

Late in February I gave sixth graders and their teachers the questionnaire. I asked the students to circle words and phrases they didn't understand. Both sample districts were not committed to career education, so I left some of the vocabulary of career education stand as one way to determine differences between the two districts. Some questions called for observation of physical fact. I checked these statements to determine if the deviation was small. It was. I also had a chance to visit with the students afterwards. From these conversations I was able to understand some of the confusion and to revise accordingly.

Dr. Wayne Courtney, who works with education majors on the statistical design of the dissertations, examined the questionnaire, made some recommendations for the design of the study, and added a T test to compare teachers with teachers in the two districts and students with students. He also recommended that I did not need to subject the instrument to a factor analysis.

As of this writing, I am in the process of giving the printed and refined questionnaire to Hillsboro and Springfield.

If you would like to ask either Dr. Ten Pas or me anything about the field test process or ask or suggest anything, I'm at ext. 1161, Batcheller Hall 102, and Dr. Ten Pas' phone is 2961, Batcheller Trailer.

It would really be more friendly to sit down and discuss this individually, but I'm assuming your schedule is about double to mine, and I'm already bending over.

See you in early May, I hope.

Sincerely,

APPENDIX K

March 14, 1973

Mr. Dave Carman
Director of Career Awareness Process
Mt. Vernon Elementary School
725 South 42 Street
Springfield, Oregon 97477

Dear Dave,

I enjoyed visiting with you and Marge last Friday. Given our discussion, this is my formal request to administer the Career Awareness questionnaire on April 12 at 8:00 a. m.

I also want to reassure you that the results of the study will be returned to you so that those involved in the study may profit by whatever is to be learned.

Sincerely,

John H. Baker

JHB:jg

cc: Hartley Troftgruben