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FOR LOCAL LEADERS OF OCCUPATIONAL EDUCATION

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Competencies essential for the adequate performance of voca-

tional education leadership roles were investigated in this study.

Methods of preparing individuals for these roles were also considered.

Answers to two basic questions were sought as base data on which

future programs of occupational education leadership might be built.

These questions were:

1.   What competencies must be possessed by leaders in

   occupational education?

2.   How can the essential competencies for occupational

   education leaders best be developed?

A list of competency items thought to be needed for effective

leadership was identified through the review of literature and during

study of existing leadership development programs. This list of

competency items was studied and revised by more than 160 present

leaders of vocational education who participated in Oregon's Program

of Vocational Education Leadership Development Seminars during 1966.

Competency items were rewritten and incorporated into a questionnaire utilizing a Likert type scale to obtain a rating for each of the 50 items. The questionnaire was then administered to 134 leaders of vocational education in Oregon and to ten national leaders. An 88 percent return was received from the Oregon population and a 100 percent return from the national population.

The mean rating for each competency item was computed and the items ranked according to their mean ratings. Rankings were determined for each subgroup of the total Oregon population as well as for the national panel and the total Oregon population. Application of the Chi Square test to each competency item did not indicate significant difference in the way the national panel rated each item as compared to the Oregon study population. When the Spearman rank coefficient statistic was used to measure the degree of association between the competency items' ranking by the two study populations, a positive correlation was determined.

The findings of this study have identified a list of 40 competencies which, in all probability, are essential to the adequate performance by occupational education leaders. These competencies are most applicable to Oregon needs but should also be generally applicable to other states. The findings also indicate that the best

method of preparing an individual for most competencies is a combination of course work and internship experience. The list of essential competencies identified can serve as a base on which to build future programs of vocational education leadership development.

Vocational Education Competencies
Identified For Local Leaders
Of Occupational Education

by

Darrell Lin Ward

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TABLE OF CONTENTS

LIST OF TABLES

VOCATIONAL EDUCATION COMPETENCIES
IDENTIFIED FOR LOCAL LEADERS
OF OCCUPATIONAL EDUCATION

Chapter I

INTRODUCTION

President Kennedy's Panel of Consultants on Vocational Education recognized the vital role of leadership for vocational education. This was shown throughout their report but particularly in their statement:

> The leadership of vocational education will determine
> both its quality and its effectiveness. In a rapidly chang-
> ing world the leader must be dynamic, forward looking
> and able to adapt his thinking to the constantly changing
> situation which he faces. Capable leadership is always
> in short supply, especially in the new fields (59, p. 163).

Vocational Education has reached a time in its development where leadership is called for, in fact demanded, as it has never been before. The past has provided leaders whose vision has left an indelible mark on the development of occupational education. However, this generation's leaders in occupational education are experiencing a vastly changed environment. They face the task of bringing together a multiplicity of divergent interests and concerns, many of which are in conflict. The leader who can reconcile, coax, and direct these divergent concerns into a cohesive program that will serve the needs of all the people in every community will have accomplished

what in the minds of many is impossible.

Recruitment and employment records of many states indicate a scarcity of well-prepared and qualified vocational education leaders. Typical of the vocational education leaders in scarce supply are state supervisory personnel, directors and supervisors of comprehensive high schools, administrators for area vocational schools and community colleges, teacher educators, and research and curriculum development personnel. Scarcely a state, as well as the United States Office of Education, is without need of such persons.

The Vocational Education Act of 1963 passed by the 88th Congress of the United States serves as a foundation for much of the expansion, extension, and improvement currently being generated in the field of vocational education. This legislation was largely based upon the report of President Kennedy's Panel of Consultants on Vocational Education which recognized the need for and importance of leadership. The Panel's report stressed the importance of leadership for vocational education in the following manner:

> The bold expansion of vocational education programs intensifies the need for leadership development. Special attention should be given to development of highly qualified professional personnel in the many facets of vocational education. The task is large and will require measures considerably beyond the facilities now provided. Professional staffs at the universities that provide leadership training will have to be enlarged. Recruitment of candidates for leadership training will have to be expanded and incentives provided in the form of fellowships or other stipends to make it possible for acceptable candidates to undertake the training

needs. In-service opportunities for leadership growth
should be made available (59, p. 163).

The passage of the 1968 Amendments to the Vocational Educa-

tion Act of 1963, with their greatly increased funding and broadened

designation of services to be performed, will effect even greater

stress upon the leadership of occupational education. Provisions of

these amendments and of Sections 552 and 553 of the Education Pro-

fession's Development Act now provide in some measure the re-

sources needed to meet the challenge of leadership for vocational

education.

Statement of the Problem

A need exists for an increasing number of occupational educa-

tion leaders as well as for leaders with competencies not previously

clearly identified. Programs designed to prepare leaders of occupa-

tional education in sufficient numbers are lacking. The development

of satisfactory programs of occupational education leadership prepara-

tion requires that the competencies which occupational education

leaders must possess be more clearly identified.

The common pattern of educational preparation for vocational

personnel in our public schools is one of early specialization. Most

teachers are recruited to the profession on the basis of their interest,

bringing with them technical competency in an occupation, or

acquiring competency in an occupational field through their teacher

preparatory program. Many of the present teachers in Oregon's

vocational programs, particularly in the trade fields, have had a

minimum of professional educational preparation and general educa-

tion.

Among teachers so recruited are many very able individuals

who rise to leadership positions, frequently without the opportunity

to acquire an understanding of the nature of our society and its needs.

They need assistance in understanding the total educational enter-

prise and the social and economic conditions of our society. They

also need to develop the skills of an effective educational leader.

Added to these problems in leadership development is the fact

that many of our present vocational leaders derive their specialized

competency from the various vocational education service areas.

The very nature of this specialization, which gives strength to many

of our present leaders, may prevent a broad understanding of the

entire field of vocational education and in particular of the occupa-

tional mix which is presently required to effectively coordinate the

total preparation of youth and adults.

A different type of specialization is now needed by vocational

education leaders. In addition to specialization in subject matter

areas such as Agriculture, Home Economics, and Trade and Indus-

trial, specialization in the functional roles of a leader must be

obtained. This specialization will include performance in <u>adminis-</u> <u>trative</u>, <u>supervisory</u>, <u>coordinative</u>, <u>consultive</u>, and <u>teacher</u> <u>education</u> roles. At times it is necessary that all these roles be performed by the same individual and by leaders at all levels of the educational structure.

Questions To Be Answered By The Study

This study seeks answers to two basic questions:

1. What competencies must be possessed by leaders in occupational education?

2. How can the essential competencies for occupational education leaders best be developed?

    a. Which competencies can best be provided through a program of internship?

    b. Which competencies can best be provided through formal university course work?

    c. Which competencies can best be provided through a combination of internship and university course work?

Significance of the Problem

This problem is significant for two reasons:

1. A need presently exists for programs which can prepare an increased number of individuals who have the

competencies for leadership in today's challenging pro-

grams of occupational education.

2. In order to improve those programs now preparing lead-

ership personnel for occupational education and to pro-

vide a sound base for establishing additional programs,

there is need to identify the most essential competencies

which leadership personnel must possess.

This need for occupational education leadership takes on in-

creased significance when viewed from the role vocational education

must play in an expanding economy and a rapidly increasing labor

force. A trillion dollar U. S. economy by 1975, accompanied by a

huge growth in job opportunities requiring general education and

technical training, has been forecast by Albert T. Sommers, Vice

President and Research Director of the National Industrial Conference

Board. Addressing the opening general session of the 1966 American

Vocational Association Convention, Sommers said:

> The economic potentials in the coming decade seem to
> point with conviction to a new environment in many ways
> dramatically different from the environment of the past two
> decades and containing a new set of challenges and prom-
> ises (51, p. 16).

One year later at the 1967 American Vocational Association Con-

vention, Roman C. Pucinski, Congressman from Illinois, reempha-

sized the role vocational education must play in America's reach for

a trillion dollar economy. Mr. Pucinski said:

Make no mistake, this nation is going to a trillion dollar
gross national product by 1972. We are now at 780 billion
dollars and will reach 850 billion by next summer. In a
trillion dollar economy the keystone of education has to be
vocational education. The need for vocational education
will continue to grow throughout the 1970's as our work
force approaches 100 million people by 1980. By then
each man and woman in the work force will need retrain-
ing every five to seven years (44, p. 10).

Congressman Pucinski went on to say that:

With the anticipated work force's training and retraining
needs and the approximate cost of occupational training
reaching $1000 per year for each trainee, the nation's
involvement in occupational training will approach 15
billion dollars a year by 1980. Vocational education is
no longer a sport for the meek. You must have the cour-
age to demand millions of dollars to carry out your mis-
sion (44, p. 10).

Sommers, when discussing U. S. population forecasts for 1975

ranging from 219 million to 230 million said:

While it does not face a population explosion, the U. S.
economy does face a labor force explosion of nearly un-
precedented proportions as the high birth rates of the post-
war years pour a huge generation into the market place
(51, p. 16).

The potential of a trillion dollar gross national product and a

labor market explosion poses immense problems for the American

society. The two major challenges posed by this potential are the

creating of jobs and the educating of people to fill those jobs. Cer-

tainly the second major challenge is a valid responsibility of our

education system and in particular of our system of occupational

preparation for youth and adults. If we are to meet the challenge

posed by our expanding economy and changing labor force, the educational structure must achieve goals heretofore either not clearly defined or deemed impossible. Effective leadership will be critical in this effort.

Scope of the Study

The basis for this study has been a pilot program, "The Oregon Program of Vocational Education Leadership Development." This program was initiated in January, 1966, and has sought to enhance the effectiveness of present leaders and to identify, recruit, select, and prepare an increased number of future leaders for vocational education in Oregon. (Chapter III provides a description of this program.)

Two phases of this program exist. The first is in-service education for the upgrading and improvement of present leaders in vocational education. The second or preservice phase recruits potential vocational education leaders from the ranks of vocational teaching personnel and prepares them for roles as administrators, supervisors, consultants, coordinators, and teacher educators of vocational education.

This study was primarily concerned with the State of Oregon as it applied to the development of a preservice program to meet the leadership needs of occupational education in that state. Additionally

a national panel was surveyed to determine their opinion as to the competencies required by vocational education leaders. The national panel serves as a comparative check on the Oregon population's response and should also add creditability to the study findings as they might be applicable to other states.

Definitions

The following terms are defined for this study. Other terms or phrases are considered to be self-explanatory.

1. Adult Education - Education of persons who have temporarily or permanently discontinued their full-time schooling.

2. Apprenticeship Training - A program of related and supplemental instruction in a craft, trade, industrial, or technical occupation in which learners or apprentices are regularly and lawfully employed for the accepted term of the apprenticeship.

3. Community College - When used in this study, community college will refer to a two-year institution offering a comprehensive curricula of post-high school, but less than a baccalaureate degree, courses from which programs in lower division collegiate, vocational, technical, and general education for youth and adults may be taken. Credit from lower division collegiate programs may be transferred to senior institutions for application on the baccalaureate degree. The other

programs will be designed for completion or terminal credit. The name implies and will be used by the writer to indicate a locally-controlled institution primarily serving a commuting area.

4. General Education - When used in this study, general education will refer to a type of education that can best be defined through this reference to Johnson (25, p. 19): "General education is that form of education which prepares people for their common activities as citizens in a free society." General education as opposed to occupational education does not necessarily lead directly to job preparedness.

5. Internship - Planned field experience under the guidance and supervision of recognized leaders in the operation and direction of occupational education programs. As used in this paper, the internships shall be directed to administrative and/or leadership positions in vocational education, as opposed to vocational teaching positions.

6. Leaders of Occupational Education - The term leaders, as used in this study, refers to professional occupational education personnel who have as a significant portion of their responsibility a role in the administration, supervision, coordination, consultation, and/or teacher education of occupational education at the community college and/or secondary level. The

activities of an individual in a leadership position may include

responsibilities for more than one service area of occupational

education or for a multiple staff within a single service area.

Examples of leadership personnel are administrators and

supervisors of occupational education in community colleges and

directors and supervisors of secondary occupational education

programs in local high schools, intermediate education dis-

tricts, and area occupational facilities.

7. Occupational (Vocational) Education - Education designed to

contribute to occupational choice, competence, and advance-

ment. In this study the terms occupational and vocational edu-

cation are used synonymously.

8. Post-secondary Institutions - Educational agencies of less than

the four-year college level, but beyond the secondary level.

These schools may be junior and community colleges, voca-

tional schools, and/or technical institutions generally serving

an area larger than a single high school district.

9. Practical Arts Education - Education in agriculture, business,

distribution, home economics, industry and similar fields,

which is not designed to prepare for a particular occupation

or a cluster of related occupations.

10. Professional Education - Specialized education for occupations

requiring four or more years of college preparation.

11. Technical Education - Specialized education for occupations

ordinarily requiring two or more years of preparation beyond

high school which emphasizes the science, mathematics, and

laboratory procedures related to the occupations for which the

students are preparing.

12. Trade Extension - Instruction designed to supplement or extend

the trade knowledge or skill, or both, of employed workers in

industry.

Chapter II

REVIEW OF LITERATURE AND PROGRAMS PREPARING VOCATIONAL EDUCATION LEADERS

The area of leadership has received a great deal of attention from both early and modern day researchers. Studies of leadership have been conducted in the disciplines of political science, sociology, history, anthropology and economics, as well as in education. A great deal of research has been conducted relating to leadership in general and more specifically to the field of education leadership.

This chapter will review the general nature of leadership, the responsibility for occupational leadership preparation, and the need for leadership in occupational education. The latter portion of this chapter briefly reviews three programs which were specifically designed to prepare occupational education leadership personnel.

Defining Leadership

There have been many attempts to define leadership both from a general standpoint and from the nature of functions which a leader performs and/or the situations in which leadership occurs. In general terms, Webster's New World Dictionary, College Edition (20, p. 831) defines a leader as:

1. A person or thing that leads; directing, commanding, or guiding head, as of a group or activity . . . .

Lipham, in his chapter "Leadership and Administration" in

The Sixty-Third Yearbook of the National Society for the Study of

Education states that leadership has been defined in many ways and

proposes a definition which derives additional meaning when viewed

in terms of the organizational context presented in his treatment of

leadership and administration. Lipham defines leadership as, "the

initiation of new structure or procedure for accomplishing an organi-

zation's goals and objectives or for changing an organization's goals

and objectives with the emphasis upon initiating change" (18, p. 22).

Tead, author of the Art of Leadership and the major contributor

to the Encyclopedia Britannica's leadership section has said, "Lead-

ership is the activity of influencing people to cooperate toward some

goal which they come to find desirable" (55, p. 824-825). However,

this is an over-simplification of a very complex matter. Leader-

ship in its deeper meaning has the more difficult task of being con-

cerned with what the follower should want, may come to want, or

be brought to want in terms of his own aims as projected against the

common good.

Cartwright and Zander have pointed out the difficulties of defin-

ing leadership. They have summarized that:

> To some, leadership is a property of a group, while to
> others it is a characteristic of an individual. To those
> who emphasize the group, leadership may be synonymous
> with prestige, with the holding of an office, or with the
> performance of activities important to the group. To

those who stress the individual, however, leadership may mean the possession of certain personality characteristics such as dominance, ego-control, aggressiveness, or freedom from paranoid tendencies, or it may mean the possession of certain physical characteristics such as tallness or an impressive physiognomy (5, p. 539).

Kretch, Crutchfield, and Ballachey (27) have indicated that a leader is someone who serves to some degree as an executive, planner, policy-maker, expert, external group representative, controller of international relationships, purveyor of rewards and punishments, arbitrator, exemplar, group symbol, surrogate for individual responsibility, ideologist, father figure, or scapegoat.

Because of the difficulties involved in using any of these foregoing definitions, it has been proposed by writers in the field of education that attention be given not to a definition of leadership but to leader behavior as it occurs in a group; then leadership acts may be defined by the investigator and leaders identified by the relative frequency in which they engage in such acts. Since this study is concerned with the leader as an individual in a set of given offices, it is primarily concerned with the meaning of leadership as mentioned in this paragraph.

Tead summarizes much of the literature regarding the characteristics of a leader.

Other things being equal, people who lead in any important way are observed to have a generous endowment of physical and nervous energy; they have some mastery of the technical ways and means of achieving the aim they profess;

they are able to sustain the confidence, loyalty, and often the affection of those who become followers; they are more than normally persuasive in helping others to enlist in and support the cause to be served (55, p. 824).

The Leadership Role

Phillips has described the following principles as providing directions for the leader in understanding his role and relationship to the group (43, p. 13):

1. Each member of the group has contributions which he can make to the group.

2. People who have the opportunity to participate in making decisions that affect their well being are likely to act in accordance with the decisions made.

3. Leadership is most effective when it is group-centered, rather than centered in the status leader.

Phillips goes on to say that:

... in a society in which people are the heart of the focal point of the social order we must be concerned with the means as well as the goals of leadership. What happens to people in the decision-making process becomes a major concern. Is it possible in leadership situations to achieve goals and objectives while at the same time assisting people to develop and mature? This question must be answered in the affirmative if the aspirations of a democratic society are to be achieved (43, p. 13).

Although researchers generally concur that the characteristics of the leader cannot be accurately determined, they do agree that the functions of leadership within the leadership role can generally be described. Logan has identified 12 functions which he feels are relevant to vocational education:

FUNCTIONS OF LEADERSHIP

Planning--Works cooperatively with group members to
make short-range and long-range plans and schedules
the tasks for the accomplishment of designated goals.

Organizing--Makes sure that all the manpower and mate-
rial called for in the plan are available when needed.

Guiding--Directs the work of the group so that each mem-
ber will know his duties and the manner in which they
should be performed.

Communicating--Is aware of the information needed by
the group and provides for two-way communication
about what is going on and how changes will affect group
members in their activities.

Initiating--Introduces new and different methods of doing
things in order to improve group operation.

Integrating--Seeks constantly to develop the group activity
into a team effort.

Identifying--Shows pride in being a member of the group
and provides for informal interaction in the group.

Producing--Facilitates the achievement of the objectives
for which the organization has been brought together
and prods members toward accomplishment.

Defending--Maintains vigilance to assure himself that the
well being of the group is shielded against outside inter-
vention.

Representing--Serves as the representative of the group
in stating its position to outside groups or individuals.

Evaluating--Appraises the productivity of the group and
keeps it informed of its progress or lack of progress.

Recognizing--Gives appropriate recognition and awards
for individual achievement and expresses disapproval
of poor work in private (31, p. 16).

These functions are interdependent. The absence of one may

result in total failure of an important activity.

Empirical analysis of the Oregon Program of Vocational Educa-

tion Leadership Development's operation of the past two years has

led those closely involved with the program to believe that leadership

in vocational education exists in a variety of organizational roles.

Dr. Henry A. Ten Pas, Director of the Division of Vocational Education, Oregon State University, has verbalized these leadership roles as administrating, supervising, coordinating, consulting, and teacher educating. These roles are viewed as occurring to some degree at all levels of a state's educational spectrum, the local high school, the community college, the state department of education, and at colleges and universities.

Behavior and Personal Factors in Leadership

Wenrich (66) summarizes two major dimensions of leadership behavior. One is designated "initiating structure" or "goal achievement"; that is, the leader's behavior in relation to outlining, clarifying, and delineating relationships, and establishing clear organizational goals, communication channels, and procedures for accomplishing organizational goals.

The other has been designated "consideration" or "group maintenance," and refers to behavior that indicates friendship, respect, trust, and warmth in relationship with the group members. Wenrich indicates there is considerable evidence that a person who rates high in these two dimensions of leadership behavior is generally perceived to be more effective and efficient than one who rates lower.

Social scientists who have studied group behavior have generally concluded that leadership is functional and that the true leader can

only be identified in action. Moreover, the leadership characteristics or how the leader behaves in one group may not apply to another. His behavior depends upon the task to be performed, his individual characteristics, and the composition of the group which he leads.

Cartwright and Zander in a report of their study of traits that distinguish leaders, state:

> On the whole, the attempt to discover the traits that distinguish leaders from non-leaders has been disappointing. Bird, in his book Social Psychology (1940), made an extensive examination of the research relevant to this problem and was able to compile a long list of traits which in one or more studies appeared to differentiate leaders from non-leaders. The discouraging fact, however, was that only about 5% of the 'discovered' traits were common to four or more investigations (5, p. 539).

Stogdill and Coons (52) have produced only slightly more encouraging conclusions. They report that various studies of leadership traits continue to result in contradictory findings and that the only thing tangible is that leaders excel non-leaders in intelligence, scholarship, dependability and responsibility, activity and social participation, and socioeconomic status.

Cartwright and Zander (5) have pointed out also that most group objectives may be accomplished under two headings, activities directed toward the attainment of stated group goals and activities directed toward maintaining or strengthening the work group. Kinds of leadership behavior directed toward group goal achievement are:

1. Initiates action

2. Keeps members' attention on the goal

3. Clarifies the issue

4. Develops a procedural plan

5. Evaluates the quality of work done

6. Makes expert information available.

Types of leadership behavior which exemplified a group maintenance function include:

1. Keeps interpersonal relations pleasant

2. Arbitrates disputes

3. Provides encouragement

4. Gives the minority a chance to be heard

5. Stimulates self-direction

6. Increases the interdependence among members

Hemphill, Griffith and Frederikson (24) report the development and use of a leadership behavior description questionnaire which attempted to ascertain how a leader carries out his activities. This questionnaire was administered to 206 individuals who described leaders of groups in which they were members and to 153 persons who described their own behavior as the leader of a group. They concluded that there were three major ways of accomplishing the leadership task. They were:

1. A leader may stress being a socially acceptable individual in his interactions with other group members.

2. A leader may stress getting the job done. This would involve emphasis upon group production and concern with problems relative to obtaining the group objectives.

3. A leader may stress making it possible for members of a group or organization to work together. Emphasis would be on the leader's job as one of a group catalyst.

Hemphill et al. also stated that these three major "hows" of leader behavior were not mutually exclusive. A given leader may utilize all of them to the same degree or he may use one at the expense of others.

One of the most extensive research studies into specific traits or behavioral factors in leadership has been that of Gross and Herriott's (19). They investigated behavioral factors of leadership in the specific context of the elementary school principal's role. Their findings seem to represent the present stance of researchers in respect to behavioral factors in leadership. They rejected a unitary trait theory of leadership but did not reject the possibility that, in certain situational contexts, specific traits of individuals may be associated with their leadership.

Leadership in Administration and Supervision of Education

Although the amount is limited, there is some research dealing directly with the development of leadership for the administration of

vocational and technical education. There also is significant research dealing with general school administration which is applicable to this field.

In Gross and Herriott's study (19, p. 135-149) they attempt to measure the executive professional leadership (EPL) of elementary school principals. They defined EPL as the effort of a principal to conform to a definition of his role that stresses his obligation to improve the quality of staff performance. They found that:

1. The higher a principal's evaluation of his ability to provide educational leadership to his staff, the greater his EPL.

2. The more off-duty time a principal devotes to his job, the greater his EPL.

3. Principals with a service motive for seeking their positions will provide greater EPL than those without it.

4. The greater the intellectual ability of the principal, the greater his EPL.

5. The greater the principal's interpersonal skills, the greater his EPL.

Wenrich and Shaffer (71) have reported a 1963 study which sought to determine what kinds of assistance principals of larger high schools in Michigan would consider most helpful in developing and/or operating special programs and services for

employment-bound youth. A majority of the 120 principals who were interviewed felt that they did not have time to give leadership to the programs, and nearly three-fourths of them felt their programs could be improved if funds were available for an assistant who would administer the occupational education program. Their study sought to find out more about the nature of these positions and the duties and responsibilities involved. The projected duties and responsibilities in which an assistant might be involved were divided into five major areas: Instructional Program, School-Community Relations, Pupil Personnel, Teaching Personnel, and Business Functions.

When the responses for the five areas of responsibility were compared, it was found that the activities under Pupil Personnel received the highest average number of votes per item (64 percent) as an area of primary responsibility for the assistant. School-Community Relations ranked second (60 percent), Instructional Program ranked third (47 percent), Business Functions ranked fourth (43 percent), and Teaching Personnel was fifth (16 percent).

The Responsibility for Occupational Education Leadership Preparation

The United States Office of Education (USOE), as well as many of the 50 states, has long recognized the special need for leadership preparation in vocational education. Leadership workshops have

periodically been sponsored by both the USOE and individual states

to assist the vocational leader in accomplishing the functions within

his responsibility. With the passage of the Vocational Education Act

of 1963 increased emphasis was placed upon leadership preparation

by the USOE. There have been held during 1966, 1967, 1968, and

1969 national conferences specifically for the development of leader-

ship personnel in vocational education. Many of the occupational

education administrators at state and local levels have received

preparation at these leadership workshops. There have also been

sponsored regional seminars for technical education leadership

through grants by the USOE, administered by The Center for Re-

search and Leadership Development in Vocational and Technical

Education of Ohio State University.

The USOE has noted that the need is so great "that the solution

may lie in a well-conceived program of federal assistance exclusively

devoted to helping the states expand and broaden their services and

leadership" (57, p. 2). In the same document it is stated:

> If the purposes of the Vocational Education Act of 1963 are
> to be fulfilled, the expansion of occupational training within
> the states must be of such magnitude that the demand for
> highly qualified vocational educators will transcend all pre-
> vious peace-time requirements (57, p. 2).

The specific responsibility for leadership preparation is out-

lined in the Vocational Education Act of 1963, Public Law 88-210,

Part A, Sections IV and VIII (62), in the United States Office of

Education publication <u>Administration of Vocational Education, Rules</u> <u>and Regulations</u> (56, p. 20 and 34), and in the <u>Oregon State Plan for</u> <u>Vocational Education</u> (39, p. 48). These documents clearly identify the responsibility for and authorize the financial assistance required to develop the leadership needed in programs of occupational preparation.

The <u>Oregon State Plan for Vocational Education</u> specifies that the State Board or its authorized representative will be responsible for the establishment of adequate vocational teacher education programs at the designated institutions approved for preparing teachers in accordance with the standards established by the Board and set forth in the plan. Preservice and in-service professional and subject matter teacher preparation programs and graduate programs may be supported in approved institutions or educational agencies which meet the standards provided by the State Board. The standards and policies for teacher education are under supervision of agencies or institutions designated by and under contract with the State Board and include the following provision: "Provision will be made for adequately preparing teachers, supervisors, directors, administrators, counselors, and other supporting professional personnel" (39, p. 47-48).

Passage of the Amendments to the Vocational Education Act of 1963, Public Law 90-576 (63) increased the need for leadership in

vocational education. The Act also provides, in part, the provisions

and resources with which the need for leadership can be met. Sec-

tions 552 and 553 as amendments to the Higher Education Act of 1965

provide specific direction and resource authorization. Both the

preparation of new personnel for leadership positions and the in-

service training of existing personnel is provided for.

The Need for Instructional and Leadership Personnel in Occupational Education

The need for occupational education leadership personnel in

Oregon and the nation has been dramatized in recent years by the

rapid expansion of vocational education programs for greatly in-

creased numbers of people. It is apparent that the 1968 amendments

to the Vocational Education Act of 1963 will promote continued expan-

sion of programs and continuous demand for qualified leadership at

all levels of vocational education in Oregon. In a 1965 teacher educa-

tion study, the Oregon Board of Education stated:

> The technological changes in our society (have) intensi-
> fied the needs of areas of service for vocational educa-
> tion. A skilled teacher in the classroom is vital to vo-
> cational education. But of equal importance is leadership
> that will provide the environment in which the instruction
> can operate efficiently and effectively. This leadership
> must be dynamic, forward looking, and able to adapt its
> thinking to the constantly changing situation it faces. This
> type of leadership is always in short supply and especially
> in vocational education, due to the critical need for expan-
> sion (40, p. 39).

Dr. Grant Venn, Associate Commissioner of Vocational Edu-

cation, United States Office of Education (61, p. 151) writing in his

publication, Man, Education, and Work, has listed the preparation

of teachers and administrative personnel for vocational and tech-

nical education as one of the major issues facing vocational educa-

tion today.

Venn asked the question, how can quality vocational and tech-

nical education programs be assured unless new programs for teach-

er preparation are developed by more colleges and universities? He

emphasizes that one of the greatest handicaps to the improvement

and expansion of vocational and technical education is the desper-

ate shortage of qualified teachers and administrators.

Emphasis is given by Venn to programs which will develop

leadership and imaginative administration within vocational and

technical education. He is of the opinion that leadership, so vastly

needed in the direction of present programs of vocational education,

is largely ignored at this time. He recommends (61, p. 174-175)

that colleges and universities presently offering programs in sci-

ence, engineering, health, medicine, business and other fields

related to new technologies and with experience in teacher prepa-

ration, should develop curricula and prepare instructors for voca-

tional and technical education. Listed as a responsibility within

this recommendations is the preparation of administrators

for vocational and technical education.

Nationally administrative and other ancillary personnel in vocational-technical education increased in fiscal year 1966 over fiscal year 1965 approximately 25 percent at the state level and 23 percent at the local level. The increases reflect the rapid expansion of vocational-technical education programs at all levels (58). State projection of needs and an analysis of trends in enrollments and programs indicate an average yearly increase of approximately five percent for personnel at the state level and seven percent at the local level.

The United States Office of Education, Division of Vocational and Technical Education, Bureau of Adult, Vocational, and Library Programs, in a publication, National Fiscal and Statistical Data and Projects, Vocational and Technical Education (58, p. 13-14) has projected the following need for teaching, administrative and ancillary personnel in vocational education by 1975.

Local Level	1968	1975
Teachers	163, 150	350, 000
Directors or Supervisors	3, 275	5, 675
Guidance Specialists	1, 000	1, 200
Curriculum Specialists	142	200
Work Study Specialists	450	450
Other	310	450

State Level		
Directors or Supervisors	385	530
Assistant Directors or Assistant Supervisors	430	650
Area Supervisors	380	740
Youth Specialists	75	145
Teacher Trainers (SDVE)	60	90
Itinerant	190	235
Teacher Trainers (Institutions)	2, 480	3, 150
Research Specialists	65	90
Guidance Specialists	70	95
Curriculum Specialists	60	90
Work Study Specialists	25	25
Other	135	200
Total exclusive of local teachers	9, 532	14, 015

Stevenson, of the Oklahoma Vocational Research Coordinating

Unit as reported by Logan in the December, 1966, American Voca-

tional Journal (31, p. 14), conducted a study of personnel needs at

the state and district level and of the potential supply of graduates

above the baccalaureate level. His study covered all fields of voca-

tional education, including the health occupations and vocational

counseling.

Twenty-nine state departments of education and 179 teacher

training departments in 111 institutions responded to the study

questionnaire. They indicated a total need of 1,276 persons in the

following leadership categories: supervisors - 375; researchers -

104; teacher trainers - 330; subject matter specialists - 335; and

directors (area, local, and county) - 132.

Apart from these categories there are scores of other leader-

ship positions not touched in Stevenson's surveys--vocational teach-

ers, city and county supervisors, curriculum specialists, material's

laboratory specialists, and research specialists. The teacher edu-

cation institutions responding to this survey indicated that they would

graduate 602 persons with advanced degrees - 538 master candidates

and 64 doctoral candidates. All of these would not necessarily be

available for the positions listed. Even if the available graduates

were perfectly suited to the openings, they would fill only 50 percent

of the positions.

Programs to Prepare Occupational Education Leaders

With the expansion of vocational education resulting from imple-

mentation of the Vocational Education Act of 1963, several states have

initiated programs of leadership education for vocational education

administrative personnel. Many of these, as well as most of the

national effort, have been in the area of in-service education for

those present leaders and/or emerging leaders in the field. Three

states were identified by the author as having made a significant

effort toward the development and implementation of programs specifically planned for the preservice education of potential leaders in the field of vocational-technical education.

University of Michigan: The University of Michigan leadership development program was officially launched in December of 1963 after a grant was secured from the Michigan State Board of Control for Vocational Education. The purpose of this experimental project was to develop a program for the preparation of persons to be employed in any of the following types of leadership positions:

1. Local school district supervisors and directors of vocational education

2. Intermediate school district consultants in vocational and technical education

3. Community college district directors and supervisors

4. Area vocational-technical program administrators

5. Assistant principals for vocational education in comprehensive high schools

In this project nominees are presented by local school administrators for selection by the University of Michigan staff personnel. Forty men were selected for the project during the first year, 1964-65, and 21 have been selected for the following years of 1965-66 and 1966-67. The original year's experimental program matched pairs from among the 40 candidates and divided them into two groups.

Group A, the experimental group, was given a program consisting

of both summer workshop and internship. Group B, a control

group, was only given the internship phase of the program. One

of the purposes of this experimental project was to see whether or

not the workshop made any significant difference in the preparation

of persons for leadership roles in vocational-technical education.

The program for the experimental group consisted of two parts:

(1) an eight-week summer workshop, and (2) field and internship ex-

periences throughout the following school year. The summer work-

shop was a full-time activity, including lectures, discussions, field

trips, case studies, seminars, and independent study. The program

of instruction consisted of the following units: (1) the meaning of

leadership, (2) philosophy of education, (3) organization of educa-

tion, (4) administrative functions, (5) socioeconomic considerations,

(6) curriculum development and supervision, and (7) human and com-

munity relations. Also built into the summer programs were oppor-

tunities for the development of personal skills such as writing, speak-

ing, conference leadership, and sensitivity training. Practical prob-

lems were presented by school administrators currently employed

in leadership positions; this was used as a means of relating theory

to practice. Perhaps the most significant feature of the workshop

was the interdisciplinary approach with the involvement of a large

number of lecturers from other disciplines. Also involved were

persons representing a great many state and federal agencies and organizations with which educational leadership in vocational and technical education must work in order to operate effective programs.

During the school year 1964-65 each of the participants in the project was involved in a series of field and internship experiences, generally in the school district in which he was then employed. These experiences were planned by the program director and other University staff members in cooperation with the administrators of the employing school district. Participants attended a seminar one day each month during the school year. The program director or some other member of the University staff periodically visited each intern on the job and coordinated and evaluated the activities in which he was engaged.

The results of the Michigan study are heartening as to the potential of educational programs for occupational education leaders. Nearly two-thirds of the participants in the experimental year of the project assumed more responsible positions upon completion of the program. Thirteen were promoted within the school system in which they were originally employed, while 13 others took leadership positions in other school systems. Of the remaining 14 men in the project, eight were given administrative duties and responsibilities on a part-time basis, in addition to their original assignments. Only six of the 40 men in the project assumed no new responsibilities for

leadership in vocational and technical education.

New York State: A second project specifically designed for the

preparation of vocational education leadership personnel is worthy of

mention here. New York State, under the direction of C. Thomas

Olivo, Director of the Division of Industrial Education, State Educa-

tion Department, Albany, New York, has conducted a vocational

leadership training program which was reported in the April 1965

School Shop Magazine (37).

This program was initiated in the Spring of 1964 with a plan-

ning session of distinguished vocational-technical educators from

throughout New York State. This group was asked to identify the

special competencies needed for administrators of vocational educa-

tion programs, competencies that were unique and represented par-

ticular knowledge and administrative skill beyond those required of

any school administrator.

The plan developed by this group was simultaneously reviewed

with the acting president and others of the administrators' staff at

the State University College at Oswego, by the college's department

of vocational-technical education, and the graduate council. Ap-

proved by these groups was a program titled "Vocational Education

Administrative Leadership Graduate Program."

Selected persons who met basic requirements as permanently

licensed teachers, supervisors or directors of trade or technical

subjects, composed the first group of 12 potential leaders. They were employed in internship positions by local, regional and state educational agencies. Ten of the 12 trainees were employed in administrative positions that had not existed six months earlier. The program designed encompassed both on-campus experiences and internship activities in practical leadership work.

The on-campus phase provided a totally coordinated program of knowledge and experiences related to broadly identified competencies in these major areas:

1.   The administration and supervision of vocational education

2.   Occupational analyses and vocational curriculum development

3.   Current and projected concepts of vocational education

4.   Laws, regulations and policies affecting vocational programs

5.   Plants and facilities for area vocational education programs

6.   Financial organization and fiscal management of area vocational programs

In addition, special sessions were arranged to meet the individual needs of the participants in communication skills.

The second phase of the administrative leadership program

involved an eight-month field-directed study program. In the first

two months a controlled and tightly planned instructional observation

program was provided. The candidates participated as a class in a

series of field visitations to schools, and locations where unique quali-

ties or experiences were to be found. Following the two-month in-

struction-observation phase, a six-month on-the-job experience was

provided, either working directly with an experienced director or

under an itinerant director's supervision.

State of Oregon: A third statewide program was initiated in

the Fall of 1966. The Oregon Program of Vocational Education Lead-

ership Development contained both an in-service and a preservice

phase in its program and was designed as a continuing activity co-

operatively sponsored by the Oregon Board of Education and the

School of Education, Oregon State University.

An advisory committee was formed early in this program's

development and has continued to guide this program throughout its

every stage. In addition to the overall advisory committee, Oregon

State University staff members, staff members of the Oregon Board

of Education, and local high school and community college personnel

have cooperated in the development and operation of this program.

A series of leadership seminars and workshops brought together

recognized leaders in vocational education from throughout the State

of Oregon and the United States. The knowledge and experience of

this group was pooled in the planning and developing of the preservice

phase of the internship program, and also in the development of much

of the materials which make up the content of the preservice program.

The preservice program was initiated during Summer Session

1967 at Oregon State University. Four interns were recruited for

the pilot phase of this program from the service areas of agriculture,

trade and industrial, and business education. Each of these interns

participated in a full eight-week Summer Session at Oregon State

University, plus nine months of practical internship in a local com-

munity college, a local school district, the teacher training univer-

sity and/or the Oregon Board of Education. Each completed a

planned program individually designed to meet his needs and ac-

complished specific objectives which he had identified during the

Summer Session. During the internship phase of the program, they

were also provided course work through an itinerant staff from

Oregon State University, from the Division of Continuing Education,

and from the Oregon Board of Education.

Each of the four original interns assumed a leadership position

upon completion of the program. During the second year of the pro-

gram six interns representing service areas of agriculture, home

economics, trade and industrial, distributive, and office education,

were selected. Each of these interns has also assumed leadership

roles following completion of their internship.

Currently six interns are enrolled in the third year of the Oregon program. Four are placed for internship at community colleges, one at a high school, and one at Oregon State University. Three interns are working on doctorate and three on master's degree programs and have been recruited from Minnesota, South Dakota, Guam and Oregon.

Oregon State University has been selected as one of 11 universities to offer a Leadership and Development Award Program through Section 552 of the Education Professions Development Act. The original program has served as the basis for this Leadership Development Award Program which will begin during the Summer of 1970. Oregon's three year plan for 14 national award winners include the following features:

- Candidates will spend one half time on campus and one half time in internship or observation at a local or state education agency.

- The first year a candidate will divide his time approximately one quarter in the field and three quarters on campus.

- The second year will be divided on the basis of one half internship and one half course work while at an intern center.

- The third year is devoted approximately three quarters internship and one quarter dissertation.

- Options for curricular emphasis include administration, supervision, handicapped and disadvantaged, vocational guidance, teacher education, and research.

- The core of academic subjects required varies from 51 to 60 quarter hours with the remaining credit hours the option of the candidate.

Chapter III

DESIGN OF THE STUDY

The purposes of this study were to identify those competencies which are essential for an occupational education leader to possess and to determine the best method of preparing an individual for competency. The desired end product of the investigation was curricular elements suggested for a vocational education leadership development program in Oregon.

To accomplish these purposes answers to two basic questions were sought. They were:

1. What competencies must be possessed by leaders in occupational education ?

2. How can the essential competencies for occupational education leaders best be provided ?

   a. Which competencies can best be provided through a program of internship ?

   b. Which competencies can best be provided through formal university course work ?

   c. Which competencies can best be provided through a combination of internship and university course work ?

Organizational Plan and Procedure

To answer the above questions, the study was divided into the following five segments.

1. A review of literature pertaining to the characteristics, nature, and philosophic basis of leadership.

2. A review of literature pertaining to the need for leadership in occupational education.

3. A review of selected programs which are currently preparing leadership personnel for occupational education.

4. A questionnaire (See Appendix B for copy of questionnaire) sent to 143 Oregon and ten national leaders of vocational education (See Appendix C for listing of the survey population by subgroups within the population) for the purpose of obtaining their rating of the importance of 50 selected competencies for occupational education leaders. The survey respondents were also asked to select the best of three possible methods for preparing potential leaders in the competencies.

5. Analysis of the survey data to identify the essential competencies, to determine the most appropriate method of preparation for the competency, and to develop curricular elements for inclusion in a leadership program.

Data Collection and Analysis

The questionnaire used is an adaption of one used by Courtney (8) in

a project funded by the USOE, Bureau of Research, The Identification

and Comparison of Common Professional Training Needs and Require-

ments for Teachers of Vocational Education. The instrument form

was revised to accommodate the specific needs of this study.

Competency Inventory: The basic listing of competency items

to be surveyed was gathered from the review of literature and in

particular the Group Interview Guide for a Nationwide Study of the

Administration of Vocational-Technical Education at the State Level

(29, p. 2-35). A doctoral dissertation titled Federal, State Coopera-

tive Activities in Vocational Education also supplied many items for

the competency inventory (1, p. 124-162).

Refinement of Competency Inventory: The items preliminarily

selected for the competency inventory were submitted during 1966-67

to recognized Oregon and national leaders of vocational education

during a series of seminars conducted through the Oregon Program

of Vocational Education Leadership Development. Approximately 65

individuals were asked to indicate those competencies which they

felt should be developed in an educational program to prepare leaders

of occupational education. The seminar participants were asked to

submit additions to the competency inventory, but were not called

upon to rank the competencies as to their relative importance.

The competency inventory was further refined at an evaluation conference held January 17, 1968. At this conference the four interns in the first pilot year of Oregon's Vocational Education Leadership Intern Program, along with their local institution supervisors and selected Oregon Board of Education and Oregon State University personnel, evaluated the program and the intern's activities. Additional competencies to be included, as well as competencies to be excluded from the educational program, were identified.

Validation of Survey Instrument: The listing of competency items were then incorporated into the survey instrument. The questionnaire was evaluated with the assistance of the Oregon State University School of Education Graduate Seminar in Vocational Education and with selected representatives from K-12 school districts, community colleges, the Oregon Board of Education, Division of Community Colleges and Vocational Education, and from the Vocational Division of the School of Education, Oregon State University. Upon recommendation of this group, the competency inventory was reduced from 76 to 50 items and minor changes were made in the structure of the survey instrument. The primary criteria used in the elimination of items were:

1. The elimination of similar items which seemed to duplicate the evaluation requested.

2.   The elimination of items which pertained to competencies required primarily by state department of education and university teacher education personnel.

A group of five research and development specialists of The Center for Research and Leadership Development in Vocational and Technical Education, The Ohio State University, served as the final validating panel for the instrument. The instrument was submitted to the panel with a Likert type scale attached. Panel members were asked to rate each of the 50 items as to the degree which the item satisfactorily measured the respondents' opinion of a local vocational educator's need to be competent in the activity.

Each item was rated on a five point scale (5.0 high). A composite mean score of 3.5 was considered to indicate the evaluators' collective opinion that the item satisfactorily measured what it purported to measure. All 50 of the items were retained as a result of the analysis of the specialists' ratings.

Only item seven (mean score of 3.4) and item 49 (mean score of 3.2) were rated less than 3.5. Users of the study findings should consider the relative low rating for these two items when considering them as possible currciular segments. Further investigation of these items is suggested.

Study Population

The questionnaire was sent to 134 leaders of vocational educa-
tion in Oregon and to ten national leaders. One hundred and eighteen
individuals returned useable questionnaires for an 88 percent return
from the Oregon population. There was a 100 percent return from
the national group.

The six subgroups making up the Oregon survey population
were:

1. Vocational education program supervisors and directors
   in Oregon secondary schools who received state reim-
   bursement for a portion of their salaries.

2. Vocational supervisors and directors in each of Oregon's
   community colleges.

3. Oregon school superintendents whose institutions have a
   designated state-reimbursed supervisor or director of
   vocational education.

4. Oregon community college presidents.

5. Vocational education staff members of the Division of
   Community Colleges and Vocational Education, Oregon
   Board of Education.

6. Vocational education staff members of the Division of
   Vocational Education, Community Colleges and Adult

Education, School of Education, Oregon State University.

The number of useable returns from the survey questionnaire by the total Oregon population and subgroups of the population is shown in Table 1. Selected combinations of subgroup responses, e. g., combining the two subgroups representing secondary schools, the two representing community colleges, etc., are also shown.

Table 1. Professional groupings of the Oregon survey population with number and percentage of questionnaire returns.

Group	Total No. in Group	No. Returning Questionnaire	% of Total Group Returning Questionnaire
Vo-Ed. Directors; K-12[1]	36	35	97
Vo-Ed. Directors; CC[2]	12	11	92
Administrators; K-12[1]	36	32	90
Administrators; CC[2]	12	11	92
Vo-Ed. Staff; OBE[3]	18	14	77
Vo-Ed. Staff; OSU[4]	20	15	75
Total population	134	118	88
(Group Combinations)			
Administrators & Vo-Ed. Directors; K-12[1]	72	67	93
Administrators & Vo-Ed. Directors; CC[2]	24	22	93
Administrators; K-12[1] and CC[2]	48	43	90
Vo-Ed. Directors; K-12[1] and CC[2]	38	29	76

[1] K-12 = kindergarten through twelfth grade school system

[2] CC = Community College

[3] OBE = Oregon Board of Education

[4] OSU = Oregon State University

The ten national leaders were selected from the research and development staff of The Center for Vocational and Technical Education at Ohio State University. A stratified sample was selected to assure representation from the disciplines of education, psychology, sociology, political science, and economics. The sample also represented the service areas of Agriculture, Home Economics, Business, Trade and Industrial, and Technical Education. Levels of education were also represented by people whose major background experience was drawn from secondary, post-secondary, state department of education, and university levels.

Treatment of Data

Numerical data collected through the questionnaire were compiled for machine processing, utilizing the facilities and resources of the Oregon State University Computer Center. The compilation of these data allowed the mean to be computed for each of the 50 competency items. Rank was then assigned to each competency within the total competency inventory according to its mean rating. Rankings of the competency items were compiled for the total population and for each subgroup of the population.

Opinions as to the best method of preparing for the competency were compiled on the basis of the number of respondents who chose each method. This was also determined for both the total population

and for each subgroup of the population.

The Chi Square test for determining significant difference be-
tween the response frequency of independent samples was used to
determine if there was a significant difference in the response fre-
quency of the Oregon and National population. These data are report-
ed in Chapter IV. The formula used for computing the Chi Square
statistic was:

$$X^2 = \Sigma \frac{(O - E)^2}{E}$$

Where

O = observed number of cases in the cell of the table

E = expected number of cases in the cell, computed by determin-

ing the cross products of rows and column over all cases

$$E = \frac{R \times C}{\Sigma R \text{ or } C}$$

The Spearman rank correlation coefficient statistic was used to
determine the correlation between competency item ranking by the
Oregon study population and the national panel. Since a large number
of tied ranks existed in both the Oregon and the National data, a cor-
rection factor was used in the computation of r_s (rho). The correction
factor was $T = \frac{t^3 - t}{12}$ where t = the number of observations tied at a
given rank. When the sum of squares is corrected for ties, the cor-
rection formula becomes Σx^2 or $\Sigma y^2 = \frac{N^3 - N}{12} - \Sigma T_{x \text{ or } y}$. Where ΣT

indicates that the values of T for all the groups of tied observations are summed and where x and y represent the Oregon and the National rankings respectively.

The formula used in computing the Spearman rank correlation coefficient was

$$r_s = \frac{\Sigma x^2 + \Sigma y^2 - \Sigma d^2}{2\sqrt{\Sigma x^2 \Sigma y^2}}$$

where d = the deviation between the rankings provided by the data from the Oregon study population and the data from the National panel. These data are reported in Chapter IV.

All statistical computations are based upon formulas in Siegal (50).

Chapter IV

PRESENTATION AND INTERPRETATION OF FINDINGS

This chapter is presented in two parts: 1) presentation and in-terpretation of data relative to those competencies considered most essential for occupational education leaders to possess, and 2) presentation and interpretation of data relative to the method most appropriate for preparing individuals for the competency.

Essential Occupational Education Leadership Competencies

The 50 competencies, listed in the order in which they appeared in the questionnaire, are shown in Table 2, Appendix D. The mean rating and the resultant composite rank for each competency is reported. These data were compiled from the combined responses of the six subgroups in the Oregon survey population. Where the mean score was tied for two or more items, each of the tied items was given the average of the ranks which would have been used had there been no ties.

Mean ratings were based upon the following values for individual responses: Essential, 3; Important, 2; Useful, 1; Unimportant, 0. A mean score of 3.00 would have indicated that every respondent rated the item as essential to satisfactory performance. At the other end of the scale, a mean score of 0.00 would have indicated a

unanimous opinion that the competency item in question was unimportant.

The mean rating for the 50 competencies in Table 2, Appendix D, ranged from a high of 2.86 to a low of 1.05. A mean score of 2.00 or above indicates that the Oregon population on the average considered the competency to be either essential or important. Forty of the 50 competencies were rated by mean score above the 2.00 level. Eleven competencies obtained a mean score above 2.50. They were:

6. Work with the educational administration to initiate and maintain occupational education programs

20. Organize and use local occupational education advisory committees

35. Establish and maintain effective working relationships with trade, labor, management, agricultural, and manpower organization

12. Interpret the vocational program to teachers, parents, students and the community

45. Coordinate the activities of the occupational staff

47. Conduct evaluations of vocational educational programs

40. Effectively express himself both orally and in writing

4. Develop criteria for an evaluate facilities and equipment needs of occupational preparatory programs

21. Relate the occupational education instruction program to

other areas of the school curricula

42. Locate and use community resources in program planning
    and operation

43. Identify and interpret into meaningful programs community
    labor market and student needs

Since these 11 competencies were rated relatively high they should, in all probability, be included in any program of vocational education leadership development. The frequency of the responses that rated each item either essential or important are shown in Table 3, Appendix E. Forty-one of the 50 competency items were rated either essential or important in 75 percent, or more, of the responses.

The 50 competencies in rank order of importance for leaders of occupational education are shown in Table 4, Appendix F. These items are ranked in the order of mean ratings of the total survey population, the item receiving the highest mean scores first, the next highest second, and continuing in a like manner through the 50 competencies. When mean scores were tied, each of the tied items was given the average of the ranks it would have had if no ties had occurred and it was entered in the descending order as it appeared in the questionnaire.

Also shown in Table 4 is the rank and mean rating for each item for each subgroup of the total population. This is expressed in the table with the rank written above the mean score in each of the data

cells. Ties in mean ratings were not broken for subgroups but were assigned rank in the same descending order that the items appeared in the questionnaire.

Data Provided By The National Panel: Since this study was primarily concerned with the opinions of the Oregon population, data from the national panel are considered of secondary importance. It is reported here for comparison purposes and as a check upon the data provided by the Oregon population.

Table 5, Appendix G, reports mean ratings and rankings for both the Oregon and national populations by competency item. The items are listed in rank order as rated by the Oregon study population.

The Chi Square test for significant difference was applied to each of the competency items to determine if any significant difference could be detected in the way the national panel rated each competency item as compared to the Oregon study population. A significant difference at the .05 level was found for five items. Items for which the response was significantly different were:

Item #9. Conduct community and occupational surveys.

Item #12. Interpret the vocational program to teachers, parents, students, and the community.

Item #13. Organize and conduct in-service seminars, workshops, etc. for teachers and other staff members

in occupational education.

Item #30. Provide information to students concerning the

nature and requirements of occupations.

Item #48. Plan courses of study and curricula for occupa-

tional education programs.

Each of the items was ranked lower by the national panel than they

were ranked by the Oregon study population. For the other 45 items

there was not a significant difference in the ratings by the two inde-

pendent samples.

When the Spearman rank correlation coefficient statistic was

used to measure the degree of association between the competency

items' rankings by the two study populations, a positive correlation

coefficient of r_s .799 was determined.

Since the N of the items was greater than ten, the t test for

.799 was applied using the formula $t = r_s \sqrt{\dfrac{N-2}{1-r_s^2}}$ and the signifi-

cance of the resulting t was determined from Siegel's Table of Criti-

cal Values of t. The value of t(8.65) was found to be significant at

the .001 level. A significance level of this magnitude indicates posi-

tive correlation in the rankings of the two study populations.

Considering that the Chi Square test did not indicate a signifi-

cant difference for most items in the way the Oregon and the national

panel responded and that the t test computed from the correlation

coefficient indicated a positive correlation in the items' rankings,

one could conclude that the two groups responded similarly in their rating of the 50 items. This should increase the confidence which can be placed in the items when used in Oregon's program of vocational education leadership development. This might also indicate that there would be a good possibility that a larger group based outside Oregon might also respond in a similar fashion.

Preparing for Leadership Competency

The Oregon respondents to the questionnaire indicated that the best method for preparing an individual for competency in most of the items was a combination of course work and internship. Forty-five of the 50 competencies were thought to be best prepared for in this manner. Findings from this portion of the questionnaire are reported in Table 6, Appendix H.

Competency item 3 (i.e., Apply the history of vocational education to current problems) was judged to be best prepared for through course work. The following competencies were judged to be best prepared for through a combination of internship and course work. The numbers indicate the competency sequence as it appeared in the questionnaire.

1. Promote, organize, and conduct adult occupational education programs.

2. Relate technological advances to laboratory and class

instruction.

4. Develop criteria for and evaluate facilities and equipment needs of occupational preparatory programs.

5. Break down an occupation or job into its component parts for instructional and guidance purposes.

6. Work with the educational administration to initiate and maintain occupational education programs.

7. Utilize all segments of the communications media in publicizing occupational education.

9. Conduct community and occupational surveys.

10. Secure appropriate on-the-job training positions for students.

11. Conduct follow-up studies of former vocational education students.

12. Interpret the vocational program to teachers, parents, students, and the community.

13. Organize and conduct in-service seminars, workshops, etc. for teachers and other staff members in occupational education.

14. Plan special education for disadvantaged and handicapped students.

16. Collect, analyze and apply labor market and employment data in curricula selection and development.

18. Prepare proposals for research, pilot, and demonstration projects.

19. Utilize school budgeting and cost control accounting procedures in program operation.

20. Organize and use local occupational education advisory committees.

21. Relate the occupational education instruction program to other areas of the school curricula.

22. Utilize the services of federal, state, and local agencies responsible for occupational education.

24. Utilize federal, state and local vocational education legislation, regulations and policies.

25. Conduct research leading to the establishment of new curricula and programs.

26. Establish minimum standards and criteria for the selection and approval of training stations in cooperative programs.

27. Conduct pilot and demonstration projects of exemplary programs.

28. Develop and/or direct the development of occupational education curricula.

29. Identify problems or obstacles which hinder the achievement of occupational education program goals.

30. Provide information to students concerning the nature and requirements of occupations.

31. Contribute to studies, commissions, and investigations sponsored by professional organizations and governmental agencies.

32. Interpret the state specifications for occupational education facilities.

33. Collect data and complete reports for local, state, and federal government sectors regarding the vocational education program.

34. Prepare budgets and effect fiscal operating controls.

35. Establish and maintain effective working relationships with trade, labor, management, agricultural, and manpower organizations.

36. Identify job opportunities and assist in placement of students graduating from occupational preparatory programs.

37. Prepare promotional materials to explain occupational education to the lay public.

38. Develop job specifications and select teaching and leadership personnel for occupational education.

39. Identify, recruit, and counsel students for placement in occupational preparatory programs.

40. Effectively express himself both orally and in writing.

41. Supervise the work of teachers and other occupational education personnel.

42. Locate and use community resources in program planning and operation.

43. Identify and interpret into meaningful programs community labor market and student needs.

44. Interpret financial and special needs of occupational education to the public and to the community served.

45. Coordinate the activities of the occupational education staff.

46. Evaluate the performance of teachers.

47. Conduct evaluations of vocational education programs.

48. Plan courses of study and curricula for occupational education programs.

49. Promote unity and balance between vocational and general education.

50. Prepare proposals and reports related to the approval and funding of ongoing programs of occupational education.

Chapter V

CONCLUSIONS AND IMPLICATIONS

The review of literature, review of programs to prepare voca-
tional education leaders, and the leadership competency survey have
provided data regarding leadership needs and competencies of voca-
tional education leaders. The conclusions and recommendations are
based on these data. These findings should provide valuable
guidance in curricular programming for vocational education lead-
ership. Further effort must be made to identify competencies needed
by individuals in leadership positions just now emerging or which
will become reality in the foreseeable future.

The literature indicates that there exists a current and an
anticipated future need for leaders in all leadership roles (adminis-
tration, supervision, coordination, consultation, and teacher educa-
tion) and at all levels (secondary, community college, university,
and state department of education) of vocational education. Findings
of the study indicate that present leaders believe that future leaders
must be more adequately prepared in areas of working with general
education administrators, in working with advisory committees, in
dealing with trade, labor, management, agricultural and manpower
organizations, and in interpreting programs of occupational education

to teachers, parents, students, and the community. Curriculum development, proposal writing, program evaluation, manpower analysis, community analysis, community utilization in an instructional role, budgeting and fiscal management, and supervision of both teaching and non-teaching vocational education personnel are also noted as key competencies required of future vocational education leaders.

The results also show that the best method of preparing an individual for competency in a given activity is almost universally a combination of academic course work and internship experience. This method was favored as preparation for competency in 45 out of the 50 competencies investigated.

When the data are studied for the purpose of comparing the opinions of subgroups within the total population, little difference is found in the opinion of the six subgroups. In general, wider ranges of difference occurred within subgroups than between subgroups.

A comparison of data obtained from the Oregon study population with that provided by the survey of the national panel indicated a high degree of agreement on the basis of all items surveyed. This tends to substantiate the validity of the Oregon population's ranking. Some increased credence in the use of this data for leadership development purposes outside the State of Oregon may also be assumed.

Conclusions

This study has identified a list of competencies which are essential to adequate performance by occupational education leaders. At least the top ranking 20 competencies and, in all probability, the top 40 should be included in preparatory and in-service programs for occupational education leaders. These 40 items should serve adequately as a base for leadership program development.

The data indicates that the combination of course work and internship is the best method of preparing individuals for most of the competencies identified. Present leaders in the field are highly complimentary regarding this method of preparation and are willing to provide intern centers for the field experience portion of the preparation. In Oregon as well as throughout the nation, internship is rapidly becoming a method of preparation desired both by curriculum planners and by students. Oregon, with its past history of internships in Agriculture Education, internships sponsored by the Oregon Program,[1] and more recently internships through the Oregon Program of Vocational Education Leadership Development, has led the way in pioneering this method of education.

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[1] The Oregon Program was a Ford Foundation sponsored educational development project conducted in the State of Oregon between 1961 and 1965.

Implications

The following practical considerations are projected from the findings of the study.

   ✓ 1.   That preparation for performance of the top ranking 40 competencies investigated in this study be incorporated into Oregon's Program of Vocational Education Leadership Development.

   ✓ 2.   That a combination of academic course work and internship be used to prepare individuals for competency in most leadership activities.

   ✓ 3.   That effort be made to identify additional competencies which may be needed by vocational education leaders. The area of human relations in particular should be investigated at another time.

   4.   That the desirability or lack of desirability for vocational education leaders to have competency in research be investigated in depth in light of the low priority assigned to research competencies by this study's respondents.

   5.   That the leadership roles (administration, supervision, coordination, consultation, and teacher education) be further identified and delineated.

   6.   The pilot program, the Oregon Program of Vocational

Education Leadership Development, be continued, expanded and extended beyond Oregon.

7.   That the following suggested curricular content elements be considered for a program of vocational education leadership program development:

a.   The development of effective working relationships with all segments of the educational community and with training agencies outside of the formal educational system.

b.   The ability to organize and utilize lay advisory committees and to work with labor, trade, management, agriculture, and manpower organizations related to vocational education.

c.   The ability to supervise and coordinate the activities of both vocational education instructional and noninstructional personnel.

d.   The development of effective oral and written communication skills.

e.   The design and conduct of program evaluation in vocational-technical education.

f.   The identification and use of community resources for vocational education and the use of community studies for program planning.

g. Manpower and labor market analysis and interpretation for curricular planning.

h. The preparation of budgets and the use of fiscal policy and control.

i. The identification and development of articulated (kindergarten through community college) occupational education preparatory programs.

j. The preparation of proposals for operation and funding of vocational education programs.

k. The recruitment, selection, and in-service education of occupational education personnel.

l. Understanding and effective utilization of the provisions of federal and state legislation and fiscal and program policy.

m. Conduct follow-up studies of former vocational education students.

n. Development of cooperative occupational preparation between the school and the business-industry community.

Suggestions For Further Study

In order to extend and maximize the benefits of this study, the following suggestions for further study are offered for consideration.

1. That a study utilizing a scaling procedure to determine the

degree of competency desired for each of the essential

items be conducted.

2.   That the instrument be utilized with other groups of indi-

viduals such as interns in vocational education leadership

programs and teachers of vocational education.

3.   That a similar study be extended to a larger geographic

area.

The 40 top ranking competencies identified in this study are in

all probability essential to adequate performance by occupational

education leaders.   The list can serve as a curriculum development

base for programs to prepare occupational education leaders.

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APPENDICES

APPENDIX A

QUESTIONNAIRE TRANSMITTAL LETTERS

APPENDIX A

DIVISION OF CONTINUING EDUCATION

OREGON STATE SYSTEM OF HIGHER EDUCATION

VOCATIONAL AND MANPOWER DEVELOPMENT

126 General Services Building
Salem, Oregon 97310
364-2171, ext. 1141

May 16, 1969

MEMO

TO: Oregon Board of Education Vocational Education Staff Members
                           and
        Oregon State University Vocational Education Staff Members

FROM: Darrell Ward

As you know the Oregon Program of Vocational Education Leadership
Internship has been cooperatively conducted the past two years by
the Oregon Board of Education, Oregon State University, local high
schools and community colleges. As a part of my doctoral program
and in an effort to firm up the operating base for this program,
we would like to better identify what it is that a high school or
community college supervisor of occupational education must be
competent to do.

I would appreciate your completing the enclosed questionnaire and
returning it to my office (via shuttle mail, if possible) by May 28.
I will personally appreciate your assistance in this matter and
sincerely believe that your opinion regarding the competencies
needed by local leaders will help to improve our program.

DLW:w

Enc.

APPENDIX A

DIVISION OF CONTINUING EDUCATION

OREGON STATE SYSTEM OF HIGHER EDUCATION

VOCATIONAL AND MANPOWER DEVELOPMENT

126 General Services Building
Salem, Oregon 97310
364-2171, ext. 1141

The Oregon Board of Education and the Oregon State System of Higher Education
have, during the past two years, conducted a program of internship preparation
for occupational education leadership. Many Oregon school districts and
community colleges have cooperated in the development and operation of this
program.

Evaluation of the program has indicated a need for more clearly defining those
competencies that are most important for an occupational education leader to
be proficient in. We are asking your help in defining these competencies as
one way by which this program might be improved.

We are seeking information both from institution heads and from those most
directly responsible for the direction of adult and occupational education
in the institution.

Will you please complete the enclosed questionnaire and return it to me at
your earliest convenience. An identical questionnaire is being sent to

Darrell L. Ward
Coordinator
Vocational Education

DLW:w

Enc.

APPENDIX B

COMPETENCY QUESTIONNAIRE

May 16, 1969

LEADERSHIP COMPETENCIES IN OCCUPATIONAL EDUCATION

(Please return this questionnaire to Darrell Ward, Division of Continuing Education, 126 General Services Building, Salem, Oregon, 97310.)

Name _____ Position_____

Institution _____

For the purpose of this study, "LEADERS" OF OCCUPATIONAL EDUCATION are defined as:

Those professional occupational education personnel who have as a significant portion of their responsibility the administration, supervision and development of occupational education at the community college and/or secondary school level. The activities of an individual in a "leadership position" may include responsibilities for more than one service area (i.e., HEc, Ag, T&I, OE, DE) of occupational education or for multiple staff within a single service area.

Examples of leadership personnel are administrators and supervisors of occupational education in community colleges and directors, supervisors and coordinators of secondary occupational education programs in local high schools, intermediate education districts, and area occupational facilities.

Instructions:

The following pages contain a listing of competencies related to the work of occupational education leaders. For each statement, please circle the rating (1, 2, 3, 4) which best indicates your feeling about the necessity of an occupational education leader being competent in the activity. Also please check the method by which you feel potential leaders might best be trained.

Do not take too much time in thinking about any particular item. Please do not leave out any item--there are no right or wrong answers. We are primarily concerned with your opinion about the competencies needed by occupational education leaders.

APPENDIX B
LEADERSHIP COMPETENCIES IN OCCUPATIONAL EDUCATION

Please circle the number in the column which best reflects your opinion regarding the relative importance of an occupational education leader being competent to:	ESSENTIAL	IMPORTANT	USEFUL	UNIMPORTANT	Please place a check (✔) in the column which most nearly reflects the method you feel would best prepare an individual to perform the activity listed.		
					Formal Course Work	On-job Experience (Internship)	Combination Course Work & Internship
1. Promote, organize, and conduct adult occupational education programs.	4	3	2	1			
2. Relate technological advances to laboratory and class instruction.	4	3	2	1			
3. Apply the history of vocational education to current problems.	4	3	2	1			
4. Develop criteria for and evaluate facilities and equipment needs of occupational preparatory programs.	4	3	2	1			
5. Break down an occupation or job into its component parts for instructional and guidance purposes.	4	3	2	1			
6. Work with the educational administration to initiate and maintain occupational education programs.	4	3	2	1			
7. Utilize all segments of the communications media in publicizing occupational education.	4	3	2	1			
8. Identify research problems for study.	4	3	2	1			
9. Conduct community and occupational surveys.	4	3	2	1			
10. Secure appropriate on-the-job training positions for students.	4	3	2	1			

APPENDIX B
LEADERSHIP COMPETENCIES IN OCCUPATIONAL EDUCATION

Please circle the number in the column which best reflects your opinion regarding the relative importance of an occupational education leader being competent to:	ESSENTIAL	IMPORTANT	USEFUL	UNIMPORTANT	Please place a check (✔) in the column which most nearly reflects the method you feel would best prepare an individual to perform the activity listed.		
					Formal Course Work	On-job Experience (Internship)	Combination Course Work & Internship
11. Conduct follow-up studies of former vocational education students.	4	3	2	1			
12. Interpret the vocational program to teachers, parents, students, and the community.	4	3	2	1			
13. Organize and conduct in-service seminars, workshops, etc. for teachers and other staff members in occupational education.	4	3	2	1			
14. Plan special education for disadvantaged and handicapped students.	4	3	2	1			
15. Conduct and interpret the results of vocational interest inventories.	4	3	2	1			
16. Collect, analyze and apply labor market and employment data in curricula selection and development.	4	3	2	1			
17. Use the information contained in professional journals for professional improvement.	4	3	2	1			
18. Prepare proposals for research, pilot, and demonstration projects.	4	3	2	1			
19. Utilize school budgeting and cost control accounting procedures in program operation.	4	3	2	1			
20. Organize and use local occupational education advisory committees.	4	3	2	1			

APPENDIX B
LEADERSHIP COMPETENCIES IN OCCUPATIONAL EDUCATION

Please circle the number in the column which best reflects your opinion regarding the relative importance of an occupational education leader being competent to:	ESSENTIAL	IMPORTANT	USEFUL	UNIMPORTANT	Please place a check (✔) in the column which most nearly reflects the method you feel would best prepare an individual to perform the activity listed.		
					Formal Course Work	On-job Experience (Internship)	Combination Course Work & Internship
21. Relate the occupational education instruction program to other areas of the school curricula.	4	3	2	1			
22. Utilize the services of federal, state, and local agencies responsible for occupational education.	4	3	2	1			
23. Prepare articles for publication in professional journals.	4	3	2	1			
24. Utilize federal, state and local vocational education legislation, regulations and policies.	4	3	2	1			
25. Conduct research leading to the establishment of new curricula and programs.	4	3	2	1			
26. Establish minimum standards and criteria for the selection and approval of training stations in cooperative programs.	4	3	2	1			
27. Conduct pilot and demonstration projects of exemplary programs.	4	3	2	1			
28. Develop and/or direct the development of occupational education curricula.	4	3	2	1			
29. Identify problems or obstacles which hinder the achievement of occupational education program goals.	4	3	2	1			
30. Provide information to students concerning the nature and requirements of occupations.	4	3	2	1			

APPENDIX B
LEADERSHIP COMPETENCIES IN OCCUPATIONAL EDUCATION

Please circle the number in the column which best reflects your opinion regarding the relative importance of an occupational education leader being competent to:	ESSENTIAL	IMPORTANT	USEFUL	UNIMPORTANT	Please place a check (✓) in the column which most nearly reflects the method you feel would best prepare an individual to perform the activity listed.		
					Formal Course Work	On-job Experience (Internship)	Combination Course Work & Internship
31. Contribute to studies, commissions, and investigations sponsored by professional organizations and governmental agencies.	4	3	2	1			
32. Interpret the state specifications for occupational education facilities.	4	3	2	1			
33. Collect data and complete reports for local, state, and federal government sectors regarding the vocational education program.	4	3	2	1			
34. Prepare budgets and effect fiscal operating controls.	4	3	2	1			
35. Establish and maintain effective working relationships with trade, labor, management, agricultural, and manpower organizations.	4	3	2	1			
36. Identify job opportunities and assist in placement of students graduating from occupational preparatory programs.	4	3	2	1			
37. Prepare promotional materials to explain occupational education to the lay public.	4	3	2	1			
38. Develop job specifications and select teaching and leadership personnel for occupational education.	4	3	2	1			
39. Identify, recruit, and counsel students for placement in occupational preparatory programs.	4	3	2	1			
40. Effectively express himself both orally and in writing.	4	3	2	1			

APPENDIX B
LEADERSHIP COMPETENCIES IN OCCUPATIONAL EDUCATION

Please circle the number in the column which best reflects your opinion regarding the relative importance of an occupational education leader being competent to:	ESSENTIAL	IMPORTANT	USEFUL	UNIMPORTANT	Please place a check (✔) in the column which most nearly reflects the method you feel would best prepare an individual to perform the activity listed.		
					Formal Course Work	On-job Experience (Internship)	Combination Course Work & Internship
41. Supervise the work of teachers and other occupational education personnel.	4	3	2	1			
42. Locate and use community resources in program planning and operation.	4	3	2	1			
43. Identify and interpret into meaningful programs community labor market and student needs.	4	3	2	1			
44. Interpret financial and special needs of occupational education to the public and to the community served.	4	3	2	1			
45. Coordinate the activities of the occupational education staff.	4	3	2	1			
46. Evaluate the performance of teachers.	4	3	2	1			
47. Conduct evaluations of vocational education programs.	4	3	2	1			
48. Plan courses of study and curricula for occupational education programs.	4	3	2	1.			
49. Promote unity and balance between vocational and general education.	4	3	2	1			
50. Prepare proposals and reports related to the approval and funding of ongoing programs of occupational education.	4	3	2	1			

APPENDIX C

POPULATION GROUPS

APPENDIX C

POPULATION GROUPS

Number in Population Group	
143	Total survey population.
37	Vocational directors in kindergarten through twelfth grade school system.
12.	Vocational directors in community colleges.
37	Superintendents in kindergarten through twelfth grade school system.
12	Presidents of community colleges.
24	Oregon Board of Education, Vocational Education supervisory staff members.
21	Oregon State University, Division of Vocational Education, Community Colleges and Adult Education academic staff members.
10	National leaders in vocational-technical education.
74	Combination of kindergarten through twelfth grade superintendents and their vocational education directors.
24	Combination of community college presidents and their vocational education directors.
49	Combination of top administrators in both kindergarten through twelfth grade school systems and community colleges.
49	Combinations of vocational directors in both kindergarten through twelfth grade school systems and community colleges.
45	Combination of Oregon State University, Vocational Education, and Oregon Board of Education, Vocational Education staff members.

APPENDIX D

IDENTIFIED COMPETENCIES AND RANKINGS
BY OREGON EDUCATORS
TABLE 2

APPENDIX D

Table 2. Fifty competencies in vocational education leadership with rankings and mean scores as determined by responses from 118 Oregon educators.

Competency	Rank	Mean Score
1. Promote, organize, and conduct adult occupational education programs.	26	2.29
2. Relate technological advances to laboratory and class instruction.	33	2.19
3. Apply the history of vocational education to current problems.	49	1.10
4. Develop criteria for and evaluate facilities and equipment needs of occupational preparatory programs.	8	2.56
5. Break down an occupation or job into its component parts for instructional and guidance purposes.	35.5	2.18
6. Work with the educational administration to initiate and maintain occupational education programs.	1	2.86
7. Utilize all segments of the communications media in publicizing occupational education.	28.5	2.26
8. Identify research problems for study.	47	1.53
9. Conduct community and occupational surveys.	33.5	2.19
10. Secure appropriate on-the-job training positions for students.	25	2.30
11. Conduct follow-up studies of former vocational education students.	27	2.27
12. Interpret the vocational program to teachers, parents, students, and the community.	4	2.73
13. Organize and conduct in-service seminars, workshops, etc. for teachers and other staff members in occupational education.	21.5	2.34
14. Plan special education for disadvantaged and handicapped students.	43	1.91
15. Conduct and interpret the results of vocational interest inventories.	46	1.62
16. Collect, analyze and apply labor market and employment data in curricula selection and development.	30	2.25
17. Use the information contained in professional journals for professional improvement.	44	1.81
18. Prepare proposals for research, pilot, and demonstration projects.	42	1.97

Table 2. Continued.

Competency	Rank	Mean Score
19. Utilize school budgeting and cost control accounting procedures in program operation.	32	2.22
20. Organize and use local occupational education advisory committees.	2.5	2.76
21. Relate the occupational education instruction program to other areas of the school curricula.	9	2.53
22. Utilize the services of federal, state, and local agencies responsible for occupational education.	20	2.37
23. Prepare articles for publication in professional journals.	50	1.05
24. Utilize federal, state and local vocational education legislation, regulations and policies.	23.5	2.31
25. Conduct research leading to the establishment of new curricula and programs.	41	1.98
26. Establish minimum standards and criteria for the selection and approval of training stations in cooperative programs.	40	2.03
27. Conduct pilot and demonstration projects of exemplary programs.	45	1.72
28. Develop and/or direct the development of occupational education curricula.	14	2.45
29. Identify problems or obstacles which hinder the achievement of occupational education program goals.	19	2.39
30. Provide information to students concerning the nature and requirements of occupations.	23.5	2.31
31. Contribute to studies, commissions, and investigations sponsored by professional organizations and governmental agencies.	48	1.38
32. Interpret the state specifications for occupational education facilities.	37	2.14
33. Collect data and complete reports for local, state, and federal government sectors regarding the vocational education program.	39	2.04
34. Prepare budgets and effect fiscal operating controls.	12	2.49
35. Establish and maintain effective working relationships with trade, labor, management, agricultural, and manpower organizations.	2.5	2.76
36. Identify job opportunities and assist in placement of students graduating from occupational preparatory programs.	31	2.23

Table 2. Continued.

Competency	Rank	Mean Score
37. Prepare promotional materials to explain occupational education to the lay public.	35.5	2.18
38. Develop job specifications and select teaching and leadership personnel for occupational education.	21.5	2.34
39. Identify, recruit, and counsel students for placement in occupational preparatory programs.	38	2.10
40. Effectively express himself both orally and in writing.	7	2.59
41. Supervise the work of teachers and other occupational education personnel.	13	2.47
42. Locate and use community resources in program planning and operation.	10	2.52
43. Identify and interpret into meaningful programs community labor market and student needs.	11	2.51
44. Interpret financial and special needs of occupational education to the public and to the community served.	15.5	2.44
45. Coordinate the activities of the occupational education staff.	5	2.63
46. Evaluate the performance of teachers.	28.5	2.26
47. Conduct evaluations of vocational education programs.	6	2.62
48. Plan courses of study and curricula for occupational education programs.	17.5	2.42
49. Promote unity and balance between vocational and general education.	15.5	2.44
50. Prepare proposals and reports related to the approval and funding of ongoing programs of occupational education.	17.5	2.42

APPENDIX E

FREQUENCY OF ESSENTIAL OR IMPORTANT RESPONSES
FROM THE OREGON STUDY POPULATION
TABLE 3

Table 3. Frequency of responses from the Oregon study population, rating an item either essential or important.

Competency	Frequency
1. Promote, organize, and conduct adult occupational education programs.	101
2. Relate technological advances to laboratory and class instruction.	94
3. Apply the history of vocational education to current problems.	28
4. Develop criteria for and evaluate facilities and equipment needs of occupational preparatory programs.	107
5. Break down an occupation or job into its component parts for instructional and guidance purposes.	88
6. Work with the educational administration to initiate and maintain occupational education programs.	115
7. Utilize all segments of the communications media in publicizing occupational education.	105
8. Identify research problems for study.	59
9. Conduct community and occupational surveys	100
10. Secure appropriate on-the-job training positions for students.	102
11. Conduct follow-up studies of former vocational education students.	98
12. Interpret the vocational program to teachers, parents, students, and the community.	117
13. Organize and conduct in-service seminars, workshops, etc. for teachers and other staff members in occupational education.	107
14. Plan special education for disadvantaged and handicapped students.	86
15. Conduct and interpret the results of vocational interest inventories.	64
16. Collect, analyze and apply labor market and employment data in curricula selection and development.	102
17. Use the information contained in professional journals for professional improvement.	76
18. Prepare proposals for research, pilot, and demonstration projects.	89
19. Utilize school budgeting and cost control accounting procedures in program operation.	103
20. Organize and use local occupational education advisory committees.	113
21. Relate the occupational education instruction program to other areas of the school curricula.	108
22. Utilize the services of federal, state, and local agencies responsible for occupational education.	107
23. Prepare articles for publication in professional journals.	23

Table 3. Continued.

	Competency	Frequency
24.	Utilize federal, state and local vocational education legislation, regulations and policies.	105
25.	Conduct research leading to the establishment of new curricula and programs.	85
26.	Establish minimum standards and criteria for the selection and approval of training stations in cooperative programs.	88
27.	Conduct pilot and demonstration projects of exemplary programs.	78
28.	Develop and/or direct the development of occupational education curricula.	107
29.	Identify problems or obstacles which hinder the achievement of occupational education program goals.	104
30.	Provide information to students concerning the nature and requirements of occupations.	104
31.	Contribute to studies, commissions, and investigations sponsored by professional organizations and governmental agencies.	43
32.	Interpret the state specifications for occupational education facilities.	97
33.	Collect data and complete reports for local, state, and federal government sectors regarding the vocational education program.	84
34.	Prepare budgets and effect fiscal operating controls.	107
35.	Establish and maintain effective working relationships with trade, labor, management, agricultural, and manpower organizations.	114
36.	Identify job opportunities and assist in placement of students graduating from occupational preparatory programs.	100
37.	Prepare promotional materials to explain occupational education to the lay public.	98
38.	Develop job specifications and select teaching and leadership personnel for occupational education.	102
39.	Identify, recruit, and counsel students for placement in occupational preparatory programs.	91
40.	Effectively express himself both orally and in writing.	113
41.	Supervise the work of teachers and other occupational education personnel.	113
42.	Locate and use community resources in program planning and operation.	111
43.	Identify and interpret into meaningful programs community labor market and student needs.	109
44.	Interpret financial and special needs of occupational education to the public and to the community served.	107

Table 3. Continued.

Competency	Frequency
45. Coordinate the activities of the occupational education staff.	112
46. Evaluate the performance of teachers.	98
47. Conduct evaluations of vocational education programs.	113
48. Plan courses of study and curricula for occupational education programs.	108
49. Promote unity and balance between vocational and general education.	107
50. Prepare proposals and reports related to the approval and funding of ongoing programs of occupational education.	110

APPENDIX F

OREGON SURVEY POPULATION AND SUBGROUP
RANK ORDER AND MEAN SCORES
OF COMPETENCIES
TABLE 4

Table 4. Rank order and mean scores of 50 competencies of vocational education leadership as determined by responses from the total Oregon survey population and by each subgroup of the Oregon population.

Total Population Rank	Mean Score	Item number	COMPETENCY	K-12 VE	CC VE	K-12 Adm	CC Adm	OBE VE	OSU VE
1	2.86	6	Work with the educational administration to initiate and maintain occupational education programs	1 / 2.94	4 / 2.82	1 / 2.91	5 / 2.64	2 / 2.86	2 / 2.73
2.5	2.76	20	Organize and use local occupational education advisory committees	4 / 2.74	1 / 2.91	4 / 2.72	1 / 3.00	4 / 2.79	1 / 2.80
2.5	2.76	35	Establish and maintain effective working relationships with trade, labor, management, agricultural, and manpower organizations.	3 / 2.80	2 / 2.91	2 / 2.81	2 / 2.82	6 / 2.79	14 / 2.40
4	2.73	12	Interpret the vocational program to teachers, parents, students, and the community.	2 / 2.80	12 / 2.64	5 / 2.66	6 / 2.64	3 / 2.86	3 / 2.73
5	2.63	45	Coordinate the activities of the occupational education staff.	7 / 2.66	5 / 2.82	7 / 2.66	11 / 2.55	12 / 2.50	12 / 2.53
6	2.62	47	Conduct evaluations of vocational education programs	10 / 2.60	19 / 2.55	4 / 2.72	12 / 2.55	1 / 2.93	23 / 2.27
7	2.59	40	Effectively express himself both orally and in writing	9 / 2.60	8 / 2.73	6 / 2.66	7 / 2.64	9 / 2.50	15 / 2.40
8	2.56	4	Develop criteria for and evaluate facilities and equipment needs of occupational preparatory programs	6 / 2.69	6 / 2.73	3 / 2.72	14 / 2.45	25 / 2.14	20 / 2.27
9	2.53	21	Relate the occupational education instruction program to other areas of the school curricula	12 / 2.54	23 / 2.45	9 / 2.50	34 / 2.09	5 / 2.79	4 / 2.73
10	2.52	42	Locate and use community resources in program planning and operation	8 / 2.63	10 / 2.73	26 / 2.34	10 / 2.55	14 / 2.43	11 / 2.53
11	2.51	43	Identify and interpret into meaningful programs community labor market and student needs	15 / 2.54	15 / 2.64	14 / 2.47	8 / 2.64	10 / 2.50	18 / 2.33
12	2.49	34	Prepare budgets and effect fiscal operating controls	5 / 2.74	14 / 2.64	25 / 2.34	3 / 2.73	19 / 2.36	33 / 2.07
13	2.47	41	Supervise the work of teachers and other occupational education personnel	14 / 2.54	9 / 2.73	13 / 2.47	21 / 2.36	33 / 2.07	8 / 2.60

Table 4. Continued.

Total Population Rank	Mean Score	Item number	COMPETENCY	K-12 VE	CC VE	K-12 Adm	CC Adm	OBE VE	OSU VE
				Rank and Mean Score			$(\frac{Rank}{Mean\ Score})$		
14	2.45	28	Develop and/or direct the development of occupational education curricula	13 / 2.54	7 / 2.73	16 / 2.44	25 / 2.27	18 / 2.36	21 / 2.27
15.5	2.44	44	Interpret financial and special needs of occupational education to the public and to the community served	20 / 2.46	26 / 2.45	22 / 2.38	4 / 2.73	11 / 2.50	22 / 2.27
15.5	2.44	49	Promote unity and balance between vocational and general education	16 / 2.51	16 / 2.64	15 / 2.47	33 / 2.18	15 / 2.43	24 / 2.27
17.5	2.42	48	Plan courses of study and curricula for occupational education programs	11 / 2.57	11 / 2.73	10 / 2.50	9 / 2.64	40 / 1.93	38 / 2.00
17.5	2.42	50	Prepare proposals and reports related to the approval and funding of ongoing programs of occupational education	21 / 2.46	28 / 2.45	19 / 2.41	17 / 2.45	21 / 2.36	19 / 2.33
19	2.39	29	Identify problems or obstacles which hinder the achievement of occupational education program goals	17 / 2.49	25 / 2.45	20 / 2.38	19 / 2.36	8 / 2.50	32 / 2.07
20	2.37	22	Utilize the services of federal, state, and local agencies responsible for occupational education	25 / 2.34	31 / 2.36	28 / 2.28	24 / 2.27	17 / 2.36	5 / 2.73
21.5	2.34	13	Organize and conduct in-service seminars, workshops, etc. for teachers and other staff members in occupational education	36 / 2.14	29 / 2.36	17 / 2.41	23 / 2.27	13 / 2.43	7 / 2.60
21.5	2.34	38	Develop job specifications and select teaching and leadership personnel for occupational education	24 / 2.40	18 / 2.55	18 / 2.41	27 / 2.27	28 / 2.14	30 / 2.13
23.5	2.31	24	Utilize federal, state, and local vocational education legislation, regulations and policies	28 / 2.31	34 / 2.27	36 / 2.13	24 / 2.09	7 / 2.64	10 / 2.53
23.5	2.31	30	Provide information to students concerning the nature and requirements of occupations	18 / 2.49	44 / 1.73	12 / 2.47	26 / 2.27	23 / 2.29	34 / 2.00
25	2.30	10	Secure appropriate on-the-job training positions for students	19 / 2.46	40 / 2.00	11 / 2.47	30 / 2.18	39 / 1.93	26 / 2.20
26	2.29	1	Promote, organize, and conduct adult occupational education programs	35 / 2.14	3 / 2.82	41 / 2.00	13 / 2.45	16 / 2.36	6 / 2.67

Table 4. Continued.

Total Population		Item number	COMPETENCY	Rank and Mean Score			$\left(\dfrac{Rank}{Mean\ Score}\right)$		
Rank	Mean Score			K-12 VE	CC VE	K-12 Adm	CC Adm	OBE VE	OSU VE
27	2.27	11	Conduct follow-up studies of former vocational education students	22 2.43	21 2.45	38 2.06	15 2.45	26 2.14	27 2.20
28.5	2.26	7	Utilize all segments of the communications media in publicizing occupational education	27 2.31	32 2.27	24 2.34	37 2.00	24 2.21	25 2.20
28.5	2.26	46	Evaluate the performance of teachers	40 2.11	27 2.45	33 2.19	32 2.18	20 2.36	9 2.60
30	2.25	16	Collect, analyze and apply labor market and employment data in curricula selection and development	30 2.26	22 2.45	35 2.13	16 2.45	27 2.14	17 2.33
31	2.23	36	Identify job opportunities and assist in placement of students graduating from occupational preparatory programs	26 2.34	37 2.09	29 2.28	20 2.36	32 2.07	36 2.00
32	2.22	19	Utilize school budgeting and cost control accounting procedures in program operation	33 2.17	13 2.64	32 2.19	18 2.36	22 2.29	41 1.93
33.5	2.19	2	Relate technological advances to laboratory and class instruction	23 2.40	20 2.45	23 2.34	41 1.73	43 1.79	39 1.93
33.5	2.19	9	Conduct community and occupational surveys	37 2.11	33 2.27	31 2.19	29 2.18	34 2.00	13 2.47
35.5	2.18	5	Break down an occupation or job into its component parts for instructional and guidance purposes	41 2.06	39 2.00	27 2.31	22 2.27	29 2.07	16 2.33
35.5	2.18	37	Prepare promotional materials to explain occupational education to the lay public	29 2.31	38 2.09	21 2.38	36 2.09	37 2.00	45 1.73
37	2.14	32	Interpret the state specifications for occupational education facilities	39 2.11	17 2.55	34 2.16	31 2.18	32 2.00	35 2.00
38	2.10	39	Identify, recruit, and counsel students for placement in occupational preparatory programs	34 2.17	41 2.00	37 2.09	28 2.27	38 2.00	37 2.00
39	2.04	33	Collect data and complete reports for local, state, and federal government sectors regarding the vocational education program	31 2.26	36 2.09	40 2.03	38 2.00	42 1.86	44 1.73

Table 4. Continued.

Total Population Rank	Mean Score	Item number	COMPETENCY	Rank and Mean Score			(Rank / Mean Score)		
				K-12 VE	CC VE	K-12 Adm	CC Adm	OBE VE	OSU VE
40	2.03	26	Establish minimum standards and criteria for the selection and approval of training stations in cooperative programs	32 / 2.23	42 / 1.82	30 / 2.22	42 / 1.64	31 / 2.07	46 / 1.60
41	1.98	25	Conduct research leading to the establishment of new curricula and programs	38 / 2.11	24 / 2.45	39 / 2.03	44 / 1.55	44 / 1.79	42 / 1.73
42	1.97	18	Prepare proposals for research, pilot, and demonstration projects	43 / 1.97	30 / 2.36	43 / 1.81	43 / 1.55	30 / 2.07	29 / 2.14
43	1.91	14	Plan special education for disadvantaged and handicapped students	42 / 1.97	35 / 2.18	46 / 1.66	39 / 1.82	35 / 2.00	31 / 2.07
44	1.81	17	Use the information contained in professional journals for professional improvement	45 / 1.74	43 / 1.73	44 / 1.78	40 / 1.82	45 / 1.71	29 / 2.13
45	1.72	27	Conduct pilot and demonstration projects of exemplary programs	44 / 1.83	47 / 1.55	45 / 1.75	45 / 1.45	46 / 1.71	43 / 1.73
46	1.62	15	Conduct and interpret the results of vocational interest inventories	46 / 1.71	46 / 1.64	42 / 1.88	47 / 1.27	48 / 1.21	47 / 1.47
47	1.53	8	Identify research problems for study	48 / 1.43	45 / 1.64	47 / 1.44	49 / 1.00	41 / 1.86	40 / 1.90
48	1.38	31	Contribute to studies, commissions, and investigations sponsored by professional organizations and government agencies	47 / 1.46	48 / 1.45	48 / 1.38	48 / 1.09	47 / 1.43	49 / 1.33
49	1.10	3	Apply the history of vocational education to current problems	49 / 1.17	49 / 1.18	49 / 1.28	50 / .43	50 / .93	50 / .69
50	1.05	23	Prepare articles for publication in professional journals	50 / ..89	50 / .82	50 / 1.16	50 / 1.00	49 / 1.14	48 / 1.33

APPENDIX G

COMPETENCY ITEMS' MEAN SCORE AND RANKINGS
BY THE OREGON STUDY POPULATION
AND THE NATIONAL PANEL
TABLE 5

Table 5. Mean score and rankings of 50 competency items by the Oregon study population and by the national panel with items listed in order of their ranking by the Oregon population.

Item	Oregon Data		National Data	
	Mean Score	Rank	Mean Score	Rank
6	2.86	1	2.70	4
20	2.76	2.5	2.70	4
35	2.76	2.5	2.70	4
12	2.73	4	2.40	18.5
45	2.63	5	2.70	4
47	2.62	6	2.50	12.5
40	2.59	7	2.70	4
4	2.56	8	2.50	12.5
21	2.53	9	2.30	22
42	2.52	10	2.30	22
43	2.51	11	2.50	12.5
34	2.49	12	2.50	12.5
41	2.47	13	2.50	12.5
28	2.55	14	2.00	30
44	2.44	15.5	2.40	18.5
49	2.44	15.5	2.20	26.0
48	2.42	17.5	1.90	34.0
50	2.42	17.5	2.60	7.5
29	2.39	19	2.50	12.5
22	2.37	20	2.50	12.5
13	2.34	21.5	2.00	30
38	2.34	21.5	2.40	18.5
24	2.31	23.5	2.80	1
30	2.31	23.5	1.70	39.5
10	2.30	25	1.70	39.5
1	2.29	26	2.60	7.5
11	2.27	27	1.90	34
7	2.26	28.5	1.80	37
46	2.26	28.5	2.50	12.5
16	2.25	30	2.00	30

Table 5. Continued.

Item	Oregon Data		National Data	
	Mean Score	Rank	Mean Score	Rank
36	2.23	31	2.20	24.5
19	2.22	32	2.30	22
2	2.19	33.5	2.00	30
9	2.19	33.5	1.30	48.5
5	2.18	35.5	1.40	47
37	2.18	35.5	1.60	41.5
32	2.14	37	2.40	18.5
39	2.10	38	1.90	34
33	2.04	39	2.00	30
26	2.03	40	2.10	27
25	1.98	41	1.80	37
18	1.97	42	1.80	37
14	1.91	43	2.20	24.5
17	1.81	44	1.50	44.5
27	1.72	45	1.60	41.5
15	1.62	46	1.50	44.5
8	1.53	47	1.30	48.5
31	1.38	48	1.50	44.5
3	1.10	49	0.80	50
23	1.05	50	1.50	44.5

APPENDIX H

BEST METHOD FOR PREPARING AN INDIVIDUAL
IN 50 COMPETENCIES
TABLE 6

Table 6. Method judged best for preparing an individual in 50 competencies as determined by response of the total Oregon survey population and by subgroups and combinations of subgroups of the Oregon population.

Item No.	Total Pop.	Subgroups										
		Total K-12	Total CC	K-12 VE	CC VE	K-12 Adm.	CC Adm.	K-12 & CC Adm.	K-12 & CC VE	OBE VE	OSU VE	OBE & OSU Staff
1	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
2	Co	Co	Cr	Co	Co	Nc	Cr	Nc	Co	Co	Co	Co
3	Cr	Cr	Cr	Cr	Cr	Cr	Cr	Cr	Cr	Cr	Cr	Cr
4	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
5	Co	Co	Co	Co	Cr	Co	Co	Co	Co	Nc	Co	Co
6	Co	Co	Co	Co	I	Co	Co	Co	Co	I	Nc	I
7	Co	Co	Co	Co	Co	Co	Nc	Co	Co	Nc	Co	Co
8	Nc	Nc	Nc	Nc	Co	Nc	Nc	Nc	Nc	Nc	Co	Co
9	Co	Co	Co	Co	Co	Co	Co	Co	Co	Nc	Co	Co
10	Co	Co	Co	Co	Nc	Co	I	Nc	Co	Co	Co	Co
11	Co	Nc	Nc	Co	Nc	Co	Co	Co	Nc	Nc	Co	Co
12	Co	Co	Nc	Co	Co	Co	Co	Co	Co	Co	Co	Co
13	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
14	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
15	Nc	Co	Cr	Nc	Nc	Co	Cr	Co	Nc	Cr	Cr	Cr
16	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
17	Nc	Nc	Nc	Nc	Nc	Co	Cr	Nc	Nc	Nc	Cr	Nc
18	Co	Co	Co	Co	Co	Nc	Co	Co	Co	Co	Co	Co
19	Co	Co	Co	Co	Co	Co	Nc	Co	Co	Co	Co	Co

Key

Cr = Course Work

I = Internship

Co = Combination Cr & I

Nc = Response not conclusive as to best method

Table 6. Continued.

Item No.	Total Pop.	Subgroups										
		Total K-12	Total CC	K-12 VE	CC VE	K-12 Adm.	CC Adm.	K-12 & CC Adm.	K-12 & CC VE	OBE VE	OSU VE	OBE & OSU Staff
20	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
21	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
22	Co	Co	Co	Co	Nc	Co	Co	Co	Co	Co	Co	Co
23	Nc	Nc	Co	Cr	Co	Co	Co	Co	Nc	Cr	Nc	Nc
24	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
25	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
26	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
27	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
28	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
29	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
30	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
31	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
32	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Nc	Co
33	Co	Co	Co	Co	Co	Nc	Nc	Nc	Co	Co	Co	Co
34.	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
35	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
36	Co	Co	Co	Co	Co	Co	Co	Co	Co	Nc	Co	Nc
37	Co	Co	Co	Co	Nc	Co	Co	Co	Co	Co	Nc	Nc
38	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
39	Co	Co	Co	Co	Co	Co	Co	Co	Co	Nc	Nc	Nc
40	Co	Co	Co	Co	Nc	Co	Co	Co	Co	Co	Co	Co
41	Co	Co	Co	Co	Nc	Co	Co	Co	Co	Co	Co	Co
42	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co

Table 6. Continued.

Item	Total Pop.	Subgroups										
		Total K-12	Total CC	K-12 VE	CC VE	K-12 Adm.	CC Adm.	K-12 & CC Adm.	K-12 & CC VE	OBE VE	OSU VE	OBE & OSU Staff
43	Co	Co	Co	Co	Nc	Co	Co	Co	Co	Co	Co	Co
44	Co	Co	Co	Co	Co	Co	Co	Co	Co	Nc	Co	Co
45	Co	Co	Co	Co	Nc	Co	Co	Co	Co	Co	Co	Co
46	Co	Co	Nc	Co	Co	Co	Nc	Co	Co	Nc	Co	Co
47	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
48	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co
49	Co	Co	Co	Co	Co	Co	Co	Co	Co	Nc	Co	Co
50	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co	Co