# A DELPHI STUDY OF PARENTS', TEACHERS', SCHOOL BOARD MEMBERS', SCHOOL ADMINISTRATORS', SCHOOL COUNSELORS', AND STUDENTS' PERCEPTIONS OF THE ROLES OF VOCATIONAL AND TECHNICAL EDUCATION IN OKLAHOMA

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# CHAPTER I

## INTRODUCTION

Vocational and Technical Education has become a more common term in the American language in the last decade than in all the past decades combined. This has come about because of the expansion of vocational and technical education in all parts of the country as a result of the 1963 Vocational Education Act and the Amendments to the Act in 1968. Many people throughout the country are now talking about vocational and technical education, both pro and con. In either case, it appears a large percent of the lay public is not familiar with the true roles of vocational and technical education.

The role of vocational and technical education has vastly expanded the past decade. Ideas and beliefs can be outdated in ten years. This may be what has happened to some people's perceptions as to the roles of vocational and technical education. These perceptions possibly are outdated. If a person's ideas about vocational and technical education are outdated, he cannot feel too positively about it in today's world.

In Oklahoma, eighty-seven percent of our high school students (grades 9-12) are in a school that has at least one vocational program. However, only forty-one percent of the Oklahoma secondary school population was enrolled in vocational education in the 1970-71 school year (1). Of this group of 60,856 people, seventy-two percent were enrolled in reimbursed programs in homemaking and agriculture. This leaves the

other twenty-eight percent sparsely enrolled in trade and industrial education, distributive education, health occupations and technical education, occupational home economics, and cooperative vocational education training. Only twelve percent of the total school population, this includes kindergarten through adult, was in vocational and technical programs for the same year (2). One factor that should be recognized, however, is that the present vocational and technical programs cannot handle all the school population; but there is room for more than twelve percent.

By looking at these percentages and comparing them to the supply and demand data for areas in which vocational and technical education offers training, one may wonder if people really know about the potentials made available by vocational and technical education. Do the majority of the groups involved in education still see the primary role of vocational and technical education to be in agriculture and homemaking?

Today there are seventeen area vocational-technical school districts in Oklahoma that are in operation and three under construction or in the planning stages; however, the districts do not include all of the state. There is potential for expanding the area school network in the state. These districts will develop in the future first in those parts of the state where the people understand the role and need for such training. More area vocational-technical schools are not necessarily the sole answer to increased occupational training. Additional programs in the existing local secondary schools and junior colleges would provide a feasible method for increased occupational training where the need is present.

Vocational and technical education has for many years been a misunderstood portion of education. In general when people do not understand something they tend to reject its efforts or look down upon it. Vocational and technical education has been a victim of this treatment in the past, and it appears that this is often the case today. It should be determined whether or not people still have a misconception of the roles and goals of vocational and technical education. If it is found that there does exist a misconception of vocational and technical education, then every effort should be made to enlighten the public or to realign the goals of vocational and technical education to the public's perceptions. It is hard to win the support of the people if they do not understand what they are to support. On the other hand, if it is determined that there is no misconception, then the vocational and technical education people will know they have been effective in informing the public of their purposes and will be free to move on to other problem areas.

If the public has perceptions of vocational and technical education which are positive, yet differ from those of vocational and technical educators, then maybe these should be analyzed for additional concepts to be considered for the future. It is possible that the public desires roles of vocational education to which the educators should be aware. Since it is the duty of education to serve the people, the public's input is important to the planning of future programs.

## Statement of the Problem

It is considered necessary that the public have a clear understanding of vocational and technical education's roles. To be sure that the public understands the roles of vocational and technical education, their perceptions of these roles should be determined. Precisely stated the problem is "Where are the communication gaps and what are the conflicts between the various publics with regard to the role of vocational and technical education in today's society?"

## Purpose of the Study

The major purpose of this study is to determine the roles of vocational and technical education as perceived by parents, teachers, students, school board members, school administrators, school counselors, and students. The Delphi technique was used to obtain these perceptions in an opinionnaire type of inquiry rather than the traditional forecasting method. After the participants responded to the opinionnaire, the information was used to answer several research questions. The Delphi responses and the research questions should provide insight as to how the public perceives the roles and goals of vocational and technical education. The responses also pointed out any differences among the individual groups. Such data can provide people in vocational and technical education information needed to make decisions in the future. It can also be used to evaluate the existing roles, publicity, and dissemination of vocational and technical education information.

A secondary purpose of this study was to determine if there is any difference among the groups' ratings as to their perception of the roles of vocational and technical education. To accomplish these

purposes, three questions were stated. These questions are listed in the following section.

## Research Questions

Research Question Number One. What are the groups' rankings of the statements of the perceived roles of vocational and technical education?

Research Question Number Two. Is there any difference among the groups as to their perceived role of vocational and technical education?

Research Question Number Three. Is there any difference among the participants grouped by planning districts as to their perceived role of vocational and technical education?

## Need for the Study

A minimal amount of research has been conducted as to the public's perception of the roles of vocational and technical education. This information is valuable to vocational and technical educators because it will reveal if the public has been properly informed as to the role of vocational and technical education.

This study should serve as input to vocational and technical educators in evaluating the success in communicating the roles of vocational and technical education. In addition, the information gathered by this study can be the feedback needed by vocational and technical educators to readjust, if necessary, their public communications system. It will hopefully assess the past performance of their efforts in communication with the public and serving the public.

## Scope of the Study

The actual surveying included 320 people. Thirty people from each of the following eleven planning regions in Oklahoma were selected: Northeast, No. 1; Mid-East, No. 2; Southeast, No. 3; South Central, No. 4; East Central, No. 5; Tulsa SMSA, No. 6; North Central, No. 7; Oklahoma City SMSA, No. 8; Southwest Central, No. 9; Southwest, No. 10; and Northwest, No. 11. Of the thirty people from each of the regions, five were selected from each of the following six groups: parents of high school students, high school teachers, high school students, school board members, school administrators (superintendents), and high school counselors. The participants and the schools were randomly selected by planning districts to avoid biasing the data.

## Assumptions

The assumptions made by the investigator were that the sample surveyed would be analogous to and representative of the same type population in all areas of the state, and that the responses on the questionnaires would be representative of most of the population's perceived role of vocational and technical education.

Other assumptions were that the respondents were capable and in fact did reply in a way that truly reflects their feelings. It was assumed that the population was homogeneous, and the sample size was significantly large to represent the desired population.

It was also assumed that non-respondents' responses would not have been significantly different from the respondents'. Therefore, their non-response would not bias the results of the study.

## Limitations

The external validity of this study is limited by the size of the sample, and the internal validity is limited by the fact that some of the statements on the correspondence sheet were combined and reworded for correspondence sheet number two. As a result, some of the participants may not have recognized their initial statements. It is also possible that in the process of rewording and combining of statements that the participant's original intent was lost.

Another limitation is the population surveyed. Only the following types of people were involved.

1. Parents
2. Teachers
3. Students
4. School Board Members
5. School Administrators
6. School Counselors

This study was not to be representative of the entire population of Oklahoma, only of the people most directly involved in education at the local level.

## Definitions

Parents. Those individuals who have children or wards enrolled in high school.

Teachers. Those individuals listed by the Oklahoma State Department of Education as teaching in public high schools during the 1973-74 school year.

Students. Those people enrolled in public high schools during the 1973-74 school year.

School Board Members. Those people serving elected positions as members to school boards of independent public school districts in 1973.

School Administrators. Those individuals listed by the Oklahoma State Department of Education as being superintendents of independent public school districts.

School Counselors. Those individuals listed by the Oklahoma State Department of Education as being either full-time or part-time counselors in public high schools during the 1973-74 school year.

Vocational and Technical Education. Instruction designed to enable a person to succeed in an occupation requiring less than a baccalaureate degree and for which the Oklahoma State Department of Vocational and Technical Education reimburses the local school.

Roles. The part vocational and technical education plays in the total educational process.

Perceive. The way a person comprehends or feels about something.

Planning Districts. Eleven divisions of the state determined by legislative action for planning purposes. (See Appendix A)

# CHAPTER II

# REVIEW OF LITERATURE

## Introduction

The purpose of this literature review is to provide background information to lay a foundation on which to build ideas and reasoning and to seek out similiar existing research. The investigator found large quantities of background information and sufficient foundation material, but was unable to locate any existing research that was similar to this study. However, other research findings were available in the areas of opinion, perceptions, vocational and technical education, roles of education, and vocational and technical education. In addition to research findings in these areas, an abundance of related literature and writings was reviewed. As a result of this review of literature, the investigator was able to better design the study by delimiting the problems and obtaining a better understanding of the subject. This review is divided into the following sections: history and development of vocational and technical education, the foundations of vocational and technical education, the role of education, a description of vocational and technical education in Oklahoma, and some background of perceptions.

## History and Development of Vocational and Technical Education

Vocational education has been around longer than any other type of education. It is as old as man. People have for centuries had to make certain career choices. Until recently the choice was largely determined by birth. The son's life work was usually the same as his father's, and the skills were taught by the father. For many centuries the task learning cycle continued with few technological improvements.

As time progressed informal apprenticeship became the principle method of vocational instruction. According to Mays (3) indentured apprenticeship was introduced in ancient Egypt. After the Greeks organized the liberal arts, informal apprenticeship continued to be the primary method of vocational instruction. Butts (4) makes the very interesting point that the liberal arts achieved pre-eminence because practical arts were not organized and written. Apprenticeship has been a very viable means of occupational education. It is more prominent in Canada and other parts of the Western world than in the United States. In the United States formal apprenticeship programs are usually fostered cooperatively by unions and employer associations.

Formal instruction in vocational education also has a long history, which dates back to the Greeks and Romans. Military, political, and religious occupational education have held prominent places in nearly all cultures to modern times. During the seventeenth, eighteenth, and nineteenth centuries in England, Germany, France, and the United States, the literature describes the contributions of Locke, Owens, Comenius, Froebel, Goetze, Rabelais, and Rousseau. According to Bailey and Stadt (5), during their time the literature reveals:

> (1) A rather widespread concern for the practical education of working men and their children, (2) a relatively continuous development of content and methodology for manual training and other forms of handwork for the schools, (3) a developing controversy between those who would teach meaningful skills for the general education of all and those who would teach for vocations, and (4) the development of the fore-runners of public day schools, public evening schools, church-related vocational schools, private vocational and technical schools, and corporate or factory schools.

The arguments for and against vocational education are not without antecedents. Some of the early training in the vocations was for the disadvantaged, handicapped, displaced, and other people with special needs.

Many schools which attempted to teach a trade were opened for poor and pauper children in the early 1800's. In 1825 Robert Owens introduced manual arts in Indiana. During the same period, several penal institutions began to teach trades in an effort to prepare prisoners to earn legitimate livelihoods after their release.

During the latter half of the nineteenth century, there was a resistance to vocational education. William T. Harris, who was United States Commissioner of Education (1889-1906), was convinced that the purpose of public education was to "preserve and save our civil order." The classics, languages, and mathematics made up the secondary curriculum and were the basis of the college curriculum (6). The manual training movement appeared in 1880 and Calvin W. Woodward opened a manual training school in St. Louis. Woodward proposed that education "put the whole boy in school, his hands as well as his head." Manual training was not conceived of as vocational training. Rather it was an attempt to infuse new vitality into old curricula, to rouse student interest in school programs, to promote more sensible occupational

choices, to raise the educational level of the labor classes, and to elevate all occupations to a millennium of culture and refinement (7).

A large number of cities built specialized manual training high schools and introduced manual training in the upper grades of elementary schools. Manual training of this time came from one of two camps. The first group's sloyd idea advocated that manual training developed certain faculties such as hand-eye coordination and was thus a general education subject. The other group was composed of true vocational educators who understood the pedagogical efficiencies and economic advantages of formalized instruction and fostered schools which employed manual training methods. This camp followed Victor Della Vos's system (8).

The beginning of federal legislation to support and encourage vocational and technical education was the Morrill Act of 1862 which established land-grant colleges and aided the development of collegiate level education in agriculture and the mechanical arts. The next step was the Smith-Lever bill which provided federal aid for extension training of farm people in agriculture and for industrial, agricultural and home economics education in the secondary schools. Vocational education or public education for occupations which require less than the baccalaureate degree was born. Another major federal legislation was the Smith-Hughes Act (P.L. 347); its major purposes were to promote vocational education, cooperate with the state in promotion of agricultural and trades and industrial education, preparation of vocational teachers, and funding. To receive funds states had to create a board for vocational education, prepare a state plan, make an annual report to the Federal Board of Vocational Education, provide

programs in public schools of lesser than baccalaureate grade, provide the physical plant and equipment, and to orient programs to occupational entry. In return for this the federal government made funds available for paying salaries of vocational teachers, supervisors and directors.

The George-Reed Act, which was effective from 1929 to 1934, provided for further development of vocational agriculture and home economics. It also removed home economics from the trade and industrial service area making it subject to some features of the appropriations for agriculture. The George-Ellzey Act, effective from 1934-1937, made modification in the regulations affecting home economics, part-time classes in trade and industrial education, and funds for attending professional meetings. Later, matching Federal funds were provided on a graduated scale and distributive education was added to vocational education under the George-Barden Act of 1946, thus increasing support of and breadth of vocational programs. Later the George-Barden Act, Title II, provided funds for practical nursing training through 1965.

The George Barden Act, Title III, and National Defense Education Act provided for the training of highly skilled technicians in fields necessary for the national defense during the period of 1958-1962. It permitted much of the flexibilities of the original act for the level of vocational education which is commonly called "technical." The door was opened in Congress for these acts by the Vocational Education for National Defense Program during World War II. This program provided pre-employment and supplementary training for seven million war production workers from 1940 to 1945 (9).

The passage of the Vocational Education Act of 1963 was influenced by high levels of unemployment among young people. This legislation

recognized the need for a flexible educational system which could provide prevocational training, salable skills, and work experience to high school students. The Act authorized federal funds to be used for: (1) training persons attending high school, (2) preparing high school graduates or dropouts available for full-time study for job entry, (3) training or retraining persons in the labor market for advancement or job stability, and (4) developing several programs for persons with academic, socio-economic or other handicaps that prevent them from succeeding in regular vocational education programs (9).

The Advisory Council on Vocational Education studied the effects and accomplishment of the 1963 Act. It found that programs and services had not expanded enough to help students with special needs and in depressed areas because funding had not been sufficient. As a result, the Vocational Education Amendments of 1968 were posted giving high priority to the training and educational needs of the rural and urban disadvantaged, the mentally and physically handicapped, and those seeking training at the post-secondary level. They aided in closing the gap between school and employment and gave the schools the responsibility for developing the vocational and educational potential of the nation's citizens (9).

The Area Redevelopment Act of 1961 began the training of jobless workers in depressed areas. The task was carried on by the Manpower Development and Training Act of 1962 which aimed at achieving full employment. These programs were training the unemployed for needed skills and matching workers to jobs.

As to the history of vocational and technical education in Oklahoma, there were only two studies found that dealt with this topic. Robert

Freed's study, "The Development of Post-High School Technical-Vocational Education in Oklahoma," deals with the history of technical education on a statewide basis. Freed (10) states that:

> The institutions of higher education in Oklahoma that are governed by the Board of Regents for Oklahoma agriculture and mechanical colleges furnish the bulk for the technical-vocational education opportunities in Oklahoma higher education institutions. There is no state coordinating board for all technical-vocational education in Oklahoma. Enrollments and graduates in both technical-vocational education programs have approximately doubled in a period from 1959 to 1967. There has been increased awareness by the legislature, state administration, industrial people, and researchers of the role of technical-vocational education in the industrial development of Oklahoma.

In the other study by David Lombardi, "Historical Development of the Electronics Technology Curriculum at Oklahoma State's Technical Institute," Lombardi (11) states that:

> The historical development of the curriculum shows the gradual change from training a specific radio technician to a much broader research and development technician. The present graduate is capable of entering industry through a cluster of related occupations rather than a single occupation.

## The Foundations of Vocational-Technical Education

Vocational and technical education is a part of all societies in a basic and multidimensional way. It is deeply rooted in technology, economics, psychology, and sociology. Below is a brief overview of these foundations and their part in vocational and technical education.

The specific roles of vocational and technical education depend upon keeping pace with technology. Vocational and technical education has the task of keeping up with the occupational milieu of changing jobs and highly mobile and adaptable people. Some of the technological

horizons include the future use of oceans, future recreational and leisure industries, future environment programs, the future of human biological restraint and control, the future of transportation and communication, future warfare, and future weather forecasting and control (5). All of these elements are to be dealt with in an educational role by vocational and technical curricula. The influence of these elements will be the setting of and the food for vocational and technical education. Future technological developments will perpetuate and make vocational education a necessity of tomorrow.

Public vocational-technical education has a strong economic foundation. It makes positive economic contributions to society, communities, and individuals. When vocational and technical education is pursued for contribution to future occupational opportunity and earnings, it is treated as an investment good by economists (12). Some of the reasons it is treated as an investment good are: (1) it enhances the internal and external labor markets, increases specificity of skills, utilizes planning to meet manpower needs, improves employee geographic mobility, and allows substitution of workers (13). Our economy is based on the production of goods which is made possible only by the available trained manpower which produces these goods. Economics is very much a foundation on which to base vocational and technical education.

In the history of Western man, work was considered a curse. The Greeks believed that the Gods sentenced man to the drudgery of work out of condemnation and hatred (14). Sociologists of today believe that work is a goal-directed group activity. Work not only meets the needs of society for products and services, but a work group provides

an opportunity to get rewards from association with others. It protects the worker-member from outsiders, provides a channel of communication, and assures the worker of his personal worth. It also determines how much money a person is to receive for his contributions which, in turn, dictates what type of life he is to live (13). Our society and how one fits into it are based upon what one does for a living. Useful and productive work enriches society and unemployment is a detriment to it. Technical competence is built by vocational and technical education as is job satisfaction. These are two important factors to our sociological "world of work" which enables people to be contributors to rather than receivers of our work based society.

Vocational and technical education has a relevant psychological basis. The student is able to learn things that really count, and he is motivated by knowing that he is not wasting time. It takes into consideration individual differences and has something to offer all students no matter what their intelligence or ability level. It offers challenges for multi-interests groups, people with different levels of physical maturation, and those with various mental characteristics (13). Psychologically speaking, vocational-technical education does something for the masses.

According to Melvin Barlow, the theoretical model for vocational and technical education is made up of three basic components--foundations, interpretation, and implementation. The foundation principles never change; the interpretation changes with the demands of society; and the implementation is enforced through the state plans. This study is primarily concerned with the interpretation portion of the model by asking a particular segment of society what the roles of vocational and

technical education are. Their answers may have some secondary effects on the implementation component.

Barlow also believes that the foundations and elements of vocational education: (1) are of national concern, (2) provide for the common defense and promote the general welfare, (3) prepare youth and adults as a responsibility of the public school, (4) require basic education, (5) should be planned and conducted in close cooperation with business and industry, (6) provide skills and knowledge valuable in the labor market, and (7) provide continuing education for youth and adults.

## The Role of Education

Education in this nation has tended to expand on the basis of a concept which emphasized only one side of learning. Alfred North Whitehead (15), the Harvard mathematician and educator, said that some educational trends were fallacious. He wrote:

> The antithesis between a technical and a liberal education is fallacious. There can be no adequate technical education which is not liberal, and no liberal education which is not technical; that is no education which does not impart both technique and intellectual vision. In simpler language, education should turn out the pupil with something he knows well and something he can do well. This intimate union of practice and theory aids both. The intellect does not work best in a vacuum. The stimulation of creative impulses requires, especially in the care of a child, the quick transition to practice.

The other side of learning can be thought of as manpower training. In both the short- and long-run approach to manpower training, the end is the person and the means is his development through learning. Supply of labor, reducing unemployment, job development, economic growth, fiscal effectiveness and organization, and administration are but means which must stem from a basic purpose and a basic premise regarding human development goals.

A recent paper prepared by Walter Reuther spells out some of the major goals which a national manpower policy should consider. Reuther (16) says we must consider the following in a manpower policy:

Regarding Employment

1. Full employment; how do we create it and maintain it.
2. A job as rewarding work, for every person to his highest capacities.
3. A good work environment, which will promote individual dignity and self-respect.
4. A chance to learn and advance for every person.
5. A decent wage and income insurance between jobs.

Regarding the Nature of Work

6. Strive to eliminate the uselessness of certain work.
7. Prepare all for creative and contributory work.
8. Allow for the enjoyment of leisure.
9. Develop means for the transition from one job to another in a technological society.
10. Provide special help for the disadvantaged individual and community.
11. Eliminate the barriers of prejudice as to race, creed, or sex.
12. Provide opportunities for the handicapped.
13. Provide preventive and therapeutic medicine for personal or area distress.

Regarding the Worker as a Human

14. Eliminating the use of people as "manpower" and their purchase in a "labor market."
15. The human as a contributor to society rather than an instrument of production.
16. Education and training for people as more effective participants in, and for enjoyment of all, aspects of living.

This is a sound philosophy and strives to make education the cornerstone for manpower policy as human problems arise from technological changes.

In speaking of the role of the schools, Venn (9) states that: "Progress in developing this country's human resources will depend, in large measure, upon the educational system." He goes on to say:

> The school's responsibilities for manpower development are threefold. The first is essentially remedial--to provide education and training for people who lack marketable skills or are employed below their capabilities, while job vacancies remain unfilled for lack of qualified workers. Second, the school must give students the best preparation for work and life. Third, schools must provide for continuing education and updating of skills throughout the individuals working life.

In 1961, James Conant (17) stated what he believed the roles of schools to be, "I submit that in a heavily urbanized and industrial free society, the educational experiences of youth should fit their subsequent employment." He went on to state that in the colleges and graduate colleges people are prepared to help place their graduates in jobs. The best example of this practice is in engineering colleges or teaching colleges. At the college or university level, a large fraction of the graduates are making smooth transitions from education to a job. Conant goes on to say that the high school level situation is somewhat different. Over half or more of the high school graduates are seeking employment immediately upon graduation. They have no skill for employment or do they know in which matters to seek employment. He suggests that a much closer relationship should exist among schools, employers, and labor unions, as well as social agencies and employment offices. Conant (17) also speaks of vocational education and underlines four points with respect to vocational education:

> First and foremost, vocational courses should not replace courses which are essential parts of the required academic program for graduation. Second, vocational courses should be provided in grades 11 and 12 and not require more than half the student's time in those years; however, for slow learners and prospective dropouts these courses ought to begin earlier. Third, the significance of the vocational courses is that those enrolled are keenly interested in the work; they realize the relevance of what they are learning to their future careers, and this sense of purpose is carried out at the same time. Fourth, the type of vocational program should be related to the employment

> opportunities in the general locality. Vocational training which holds no hope that the skill developed will be in fact a marketable skill becomes just another chore.

The White House Conference on Youth (18) which convened in 1971 included a Task Force on Employment and the Economy. The report of this Task Force expressed concern with the failure of the schools to meet individual needs of students, particularly with respect to "preparing the students to move into work areas." Among their recommendations to make the schools more flexible and responsive, was one which should help remove a major obstacle in the usefulness of the school as a place of preparation for adulthood. The report went on to say: (24)

> Specifically, the general education curriculum which typically prepares students for neither jobs nor college, should be phased out and systems should be developed for integrating academic and vocational curriculum. At the same time, students should be given a much greater opportunity to transfer among vocation and academic curriculum and, in fact, avail themselves for offerings from both areas. These developments not only add to the flexibility of the school systems, but would also help break down the stigma all too often associated with vocational and career preparation.

With regard to institutional change, it is not inconceivable that schools by reorganization and revision can make significant alterations to meet the needs of today's young people; that is, to provide the necessary experiential learning. However, the majority of spokesmen and study groups believe that not only a drastic change within the school is essential, but that the school must reach outside its boundaries and develop programs which will involve groups and individuals in the community for a greater degree than previously. Others contend that arrangements in learning environments, completely independent of the schools, have been considered equally as important as school learning.

Many ongoing and planned federal programs are characterized by their provisions for experiential learning which may take place in a situation other than the desirable classroom setting. Specifically, occupational training or work education programs which include work experience and may or may not have a relationship with a school or school system. Some of these programs cover Manpower Training Programs, cooperative education and work study programs, volunteer work programs, and career education programs. Among the reasons for focusing on work experience programs are: (18)

1. Most adults spend a large portion of their lives involved in work,
2. Earning a living and therefore preparation for adulthood needs to include education for work,
3. Work environment is a closer approximation to adult living conditions than the school,
4. Success on the job calls for qualities, skills, and attitudes which are necessary for success in other adult roles.
5. Employers and communities have jobs that need doing, and
6. Young people who need or want money can do these jobs.

In 1970, the State Board for Vocational and Technical Education discussed the role that vocational and technical education would have during the 1970's for the State of Oklahoma. The Division of Research, Planning, and Evaluation used the Delphi technique to identify factors to consider in determination of the future role of vocational and technical education. A limited number of persons at the local, state, and national levels in education, industry, business and government were asked to participate in the Delphi study by providing ten possible endings to the following statement (19):

> In order to plan vocational and technical education during the decade ahead, the State Department of Vocational and Technical Education should concentrate its resources and energies in the following area....

The ten statements that were ranked most important by the groups were (19):

1. Analyze current vocational offerings in relationship to employment opportunities
2. Guidance and counseling
3. Involvement of industry in vocational and technical education
4. Teachers of vocational and technical education programs
5. Funding for vocational and technical programs
6. Placement of vocational and technical trainees
7. Performance standards for vocational and technical training programs
8. Orientation to employment
9. Establish goals and measureable objectives
10. Evaluation of vocational and measurable objectives

As a result of this study, in 1972, Hopkins (20) made the following recommendations as to the roles of vocational and technical education in Oklahoma for the 70's and the State Department of Vocational and Technical Education. These are only the recommendations the writer deemed relevant to this particular study.

1. The State Department of Vocational and Technical Education should take immediate steps to satisfy critical manpower needs by (a) establishing new training programs in priority areas and (b) redirecting existing programs that are no longer relevant. Vocational and technical education should take immediate steps to enrich and expand program offerings for adults and other non-secondary students.
2. The State Department of Vocational and Technical Education should take all the necessary steps to make quality skill training available to any Oklahoman desiring it.
3. The State Department of Vocational and Technical Educarion should help set up a mechanism whereby a particular person or persons will be assigned specific responsibility of helping students find work in the occupational area in which they are trained.
4. The State Department of Vocational and Technical Education should make sure skill training programs are available for disadvantaged students. In short, special designated monies, activities, and personnel must be directed physically and exclusively toward training.

In a study of the image of vocational education in Oklahoma, Shultz and Terry (21) concluded that:

1. The interviewed public perceived vocational education as being able to serve students of all ability levels.
2. The respondents of the study were not knowledgeable concerning the manner in which vocational education programs work with and are aligned with the needs of local industry as indicated by their neutral response to the statements relating to this point.
3. The interviewed public responded favorably toward vocational education in comparison with the rest of the educational system as being evident by their agree response to their statements designed to measure their perception concerning this point.
4. The interviewed public agreed that vocational education programs are accomplishing their major purpose by providing education for gainful employment for all who desire it, need it, and show the initiative to attain it.
5. The interviewed public was not adequately informed about the opportunities available and provided for by vocational education programs...
6. The respondents interviewed in this study did not perceive that vocational education was adequately acquainting students with the world of work, nor was it providing adequate information concerning the opportunities available.
7. The investigator has concluded that, in general, the public interviewed was uninformed about vocational education; however, their overall perception toward these programs would appear to be favorable.

For 1973, the Mission Statement for the Oklahoma State Department of Vocational and Technical Education (22) was: "To educate, train, and provide guidance for all persons who seek to develop the knowledges, skills, and behavioral characteristics that are necessary for employment." Some implied areas included in the Mission Statement are (22):

1. To provide vocational and technical education training programs for employment as semi-skilled, skilled, technicians, or sub-professionals.
2. To provide vocational and technical education programs for new and emerging occupations.
3. To provide vocational and technical education to prepare individuals for enrollment in advanced technical education programs, by excluding any programs to prepare individuals for employment in occupations which require a Bachelor or higher degree.
4. To provide the assistance to individuals to understand their capabilities and interests; chose a suitable career; and to prepare for, enter, and successfully complete programs in the career of their choice.

Some of the Oklahoma State Department of Vocational and Technical Education goals for fiscal year 1974 include (23):

1. More emphasis on expanding skill and technical training in the areas of greatest need and in the metropolitan areas.
2. To provide occupational orientation and exploratory experiences for all persons at all levels in order that reasonable, enlightened, and long-range decisions may be made concerning vocational choices.
3. To provide training for the educational, cultural, and economic deprived persons in the state.
4. To insure that quality education and training programs for career vocations are available to all individuals of all ages and in all communities of the state who desire and need such education and training.
5. To enter or re-enter into vocational or technical education, students to be placed within programs and on a job.
6. To improve the image of work in order that students, parents, and the general public may know the dignity, challenge, and satisfaction (intellectual and financial) of a skilled or technical occupation.
7. To provide occupational education programs for students who drop out of the formal education program before graduating in order to facilitate entrance into full-time adult programs for these persons.
8. To provide information to the general public, legislative groups, and the business community on what vocational and technical education had done, is doing, and plans to do.

9. To improve the quality of adult education in vocational and technical education.

## A Description of Vocational and Technical Education in Oklahoma

Included in this section is a brief summary of the vocational and technical programs and offerings in Oklahoma. This information is for secondary, post-secondary, and adult programs for fiscal 1973. The program divisions are vocational agriculture, business and office education, distributive education, health occupations education, trade and industrial education, technical education and home economics education. Other programs include exemplary programs, consumer homemaking, youth organizations, cooperative vocational education, disadvantaged programs, handicapped programs, special schools for industry programs, community development, mobile career development, and area vocational-technical schools.

Vocational agriculture courses were offered in 352 schools providing classes in regular vocational agriculture production, agriculture mechanics, and vocational agriculture related occupations. There were 20,236 students enrolled in these programs and 12,000 of these were farm youth and 336 were females. One hundred seventy-five chapters operated school farms or land laboratories, providing an opportunity for many non-farm students to care for their projects. Thirty-one additional schools have provided greenhouses or nurseries (22). The Vocational Agriculture Division conducted adult education courses that ranged from farm and ranch management to artificial insemination. The objective of the Vocational Agriculture Education

Programs is to provide instruction in the basic science of agriculture to meet the needs of in-school youth, out-of-school youth, and adults who are gainfully employed in production agriculture and off-farm agricultural occupations (23).

The Business and Office Education Division has a total of 102 public school programs of which 60 are operating in the regular public schools and 42 in the area vocational-technical schools. Adult preparatory classes were also offered to 3,155 adults in typing and shorthand. The public school programs combine classroom instruction with on-the-job training while the area vocational-technical schools provide primarily classroom instruction using an office simulation environment (22). Vocational Business and Office Education is designed to meet the needs of persons over 14 years of age and has as its purpose initial preparation, refresher and/or upgrading of individuals leading to employment and advancement in business and office careers. There are also programs in Cooperative Office Education which are vocational work experience programs designed to provide students an opportunity to early application of vocational skills learned in school, and the opportunity to further develop skills and abilities on a job (23).

In 1972-73 there were 61 secondary Distributive Education Programs operated in 56 comprehensive high schools and five in area vocational-technical schools. The total secondary enrollment was 2,725. A total of 10 mid-management programs operated at the post-secondary level with a total enrollment of 441. The Distributive Education Adult Classes enrolled 4,184 persons in Fiscal Year 1972-73. The areas were in the Real Estate Institute, the Food Distribution Institute, Fashion

Merchandising, and Supervisory Development (22). Vocational Distributive Education is conducted for the purpose of helping those in distributive occupations to give better service and thereby, to promote the general welfare of both producers and consumers. The Oklahoma Association of the Distributive Education Clubs of America provides programs of leadership education and competitive activities. Its two purposes are to develop a respect for education in marketing and distribution and to promote understanding and appreciation for the responsibilities of citizenship in our free, competitive enterprise system (23).

As of June 30, 1973, the Health Occupations Education Division worked with 29 Associate degree programs in 13 junior colleges, supervised 19 practical nursing programs at 20 sites, 27 secondary programs in area vocational-technical schools and public schools, and 76 adult programs for a total of 151 programs. Secondary programs include medical and dental office assistant programs and nurse assistant programs. At the post-secondary level programs are offered for Associate Degree Registered Nurses, inhalation therapy, dental technician, biomedical electronics technician, emergency medical technician, medical assistants, medical instruments technician, medical laboratory technician, medical records technician, occupational therapy assistant, radiologic technician and community mental health worker.

The adult programs in health occupations are short-term programs which may be preparatory for employment or upgrading of those already in the labor market (22). There are also numerous Health Occupations Education programs in the state operating under the Manpower Development and Training Act. The purposes of vocational and technical Health

Occupations Education Programs are to prepare selective applicants for gainful employment in the health field and to upgrade those already employed (23).

Trade and Industrial Education courses were offered in 123 comprehensive high schools and 22 area schools in Oklahoma. Those programs not meeting occupational demands were redirected or closed. Adult classes were offered in nearly every area of training that is available to full-time day students (22). The Oklahoma Association of the Vocational and Industrial Clubs of America provide the leadership and development phases of Trade and Industrial Education. Vocational Trade and Industrial Education Programs have the objective of preparing students for employment in one of the industrial skilled trades upon completion of training (23).

Technical Education is an expanding area in Oklahoma. Eleven new programs were begun in 1972-73 in four areas. Technical Education is concerned with that body of knowledge organized in a planned sequence of classroom and laboratory experiences at the post-secondary level to prepare students for a cluster of job opportunities in a specialized field of technology. This definition relates to all technologies such as agriculture, business, engineering, health, and various other professional areas. The principal goal of Technical Education is to prepare individuals for effective employment in a particular field of technology at a level within the "technician sector" of the occupational spectrum (23).

During 1972-73 Vocational Home Economics Education provided instruction and training at the secondary and adult levels through 393 programs in Consumer and Homemaking Education and Occupational Home

Economics Education. There were 28,530 students enrolled in home economics classes, grades 9-12. Of this 1,407 boys and 25,155 girls were in consumer and homemaking education classes, and 252 boys and 1,047 girls were in occupational gainful employment classes. There were also 7,590 adults served (23).

The objective of Consumer and Homemaking Education is to help individuals and families improve home environments and the quality of personal and family life. This aspect also deals with training boys and girls for dual roles--homemaking and wage earner. The objective of the Occupational Home Economics Education aspect is to prepare for occupations that use home economics knowledge and skills in the areas of child care, clothing industries, food management, institutional management, and home furnishing.

The Future Homemakers of America is an integral part of the Consumer and Homemaking program. Its overall goal is to help individuals improve personal, family and community living and to enable students to develop leadership abilities. The Young Homemakers of Oklahoma is a state organization of young women interested in improving knowledge and skills related to homemaking.

The purpose of exemplary programs is to stimulate new ways to create a bridge between school and earning a living for young people who are still in school or who are in post-secondary programs of vocational preparation. An additional purpose is to promote cooperation between public education and manpower agencies through Federal financial support of exemplary and innovative occupational programs or projects which are designed to broaden occupational aspirations and opportunities for youths, particularly disadvantaged youths, and to serve as models

for use in vocational education programs. Oklahoma had eighteen of these programs in fiscal 1973 which served 32,121 students.

In fiscal year 1973, particular effort was put forth to expand the number of Cooperative Vocational Education Programs in the vocational divisions. As a result of this effort, there were 27 programs in the vocational divisions and 21 under the direct supervision of the program specialist, yielding a total enrollment of 1,451 students (22). Cooperative Vocational Education is a program through which students receive occupational related classroom instruction and on-the-job training. The student experiences are planned and supervised by the school and employers so that each contributes to the student's education and his employability (22).

Coordinated Vocational Education and Training (CVET) is intended for in-school youth possessing academic, socio-economic, or other handicaps to such an extent as to prevent them from succeeding in traditional educational endeavors. The program includes a combination of vocational and modified related instruction that provides the educational opportunities of acquiring a salable vocational skill while also acquiring basic knowledge in the related fields of math, science, English and social studies. This approach enables students enrolled to reach maximum personal development, including employment potential, within their ability in the shortest possible time.

The objectives of the program are to provide students, 14-15 year-olds or so-called ninth and tenth graders, a two-year program with vocational education preparing them for gainful employment in jobs requiring semi-skilled knowledge and training, or through preparation in this program, prepare these students to enter regular high school

or area vocational-technical school programs and to provide students with a related curriculum that departs from traditional methods of teaching at a level where they can succeed. Seventy-four classes in 25 schools have been implemented (22).

Funds for special programs for the handicapped and the disadvantaged are provided in the Vocational Education Amendments of 1968, P.L. 90-576. These special programs are funded through the submission and approval of proposals. Disadvantaged funds allotted to the state may be used only for programs designed for those persons who have academic, socio-economic, cultural or other handicaps that prevent them from succeeding in vocational education or consumer and homemaking programs designed for persons without such handicaps.

Handicapped funds allotted to the state may be used only for programs designed for those persons who are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled or other health impaired persons who by reason of their handicapping condition cannot succeed in a regular program.

During fiscal year 1973, 39 programs for the disadvantaged were funded in 23 locations. There were 2,167 secondary students enrolled in 21 programs, and eighteen adult programs involved 2,017 adults in training activities. Also, twenty-eight programs for the handicapped were funded in thirty-two locations. Eight adult programs had 846 adults enrolled and 3,223 secondary students were enrolled in twenty secondary programs (22).

The Division of Special Schools for Industry Training functions to provide trained manpower for new or expanding industry. Special

Schools are temporary in nature and so structured that they will be terminated when a work force has been qualified for employment with a specific industry. The division trained 2,789 people in 49 programs in 34 different communities during fiscal year 1973.

Recognition for the need of skilled personnel in urban public services led to the establishment of a division to assist in this important work. With the assistance of a grant under Title VIII, Housing Act of 1964, training courses have been approved in cooperation with the Department of Housing and Urban Development. Included in the training courses conducted are statewide community development training (a housing code enforcement short course); training for municipal clerks, treasurers and finance officers; supervisory and management development training; and training for human awareness. A technical assistant in Community Development Training helps select the training sites, solicit students for training, select instructors, and see that necessary guidelines are followed. Both pre-service and in-service training are offered. Most of the training courses are administered through workshops, seminars, lectures, specialized training projects, and academic course work. The course offerings assist communities in improving their public management capabilities, in fostering orderly urban growth and development patterns, and in providing adequate services efficiently and economically (22).

This division is authorized by 11 O.S. 1971, Section 547, and has under its supervision the training and certification of all municipal clerks, treasurers, and finance officers. The statutes call for each of these municipal officials to attend a one-day training session annually before certification can be renewed. Funding is from the

State Department of Vocational and Technical Education, HUD Title VIII, and from annual fees paid by the municipal officials. During fiscal year 1972-73, 23 basic workshops and 40 advanced workshops were conducted through the state. A total of 315 attended the basic workshops and 456 attended the advanced workshops.

The mobile career development project began in 1972 as a pilot project. It is one of vocational and technical education efforts to increase youth and adult awareness of career opportunities made available through occupational training and is operated in Oklahoma's seven southeastern counties. The activities of the project are best depicted from the following summary figures. Total individuals counseled were 8,285 youth and 844 adults. Contacts were made with 385 businessmen, 1,466 educators, and 271 representatives of other government agencies. Total contacts for the year were 23,829 with 1,342 training referrals, 111 employment referrals, and 30 referrals to other governmental services (22).

There are a total of 22 Area Vocational-Technical School sites in Oklahoma, with four designated schools and 12 true area vocational-technical school districts. Four of these schools have multi-campus programs. The 22 schools operating in 16 districts enrolled a total of 19,299 students in occupational programs during the 1973 fiscal year. Secondary programs had an enrollment of 8,408 students, full-time adult programs had 827 enrolled, and 10,064 participated in part-time adult programs. Fifty-six counties of the state are being served by area schools either by membership in an area school district or by tuition. The secondary programs are reaching 290 high schools in the state.

> The general acceptance of the area school concept by the public continues to exist. The request for formation of area school districts or for information relative to annexation comes to this office frequently. New industry coming to Oklahoma inquires regarding occupational training programs in the area schools. The availability of such training in many instances has been a determining factor as to industry locating in Oklahoma (23).

## Some Background of Perceptions

This section was included because it outlines certain characteristics of perceptions. Since perceptions of the roles of vocational and technical education were what this study dealt with these characteristics were deemed important. By recognizing exactly what formulated perceptions the researcher was better equipped to continue the study.

According to Sherif, Sherif, and Nebergall (24), human communications overflow with evaluation of other people, events, objects, and the issues dividing men. Most communication whether it be ordinary conversation, public address, printed page, or radio or television presentations, talks about something strictly guarded with evaluations, whether the topic is last night's ball game, psychological theory, expenditures for a flight to the moon or an event like the assassination of a president.

Interchanges between members of greatly differing groups are frequently marred by differences in their evaluations. Some of the disruptions in communications have their underlying disagreements concerning the universe of discourse (24). This is a sematic problem of "designating referent." The classic example is a discussion of the democracy among persons who agree that it is a good thing to disagree on what they mean by democracy (24). This idea can be carried over to

discussions on vocational and technical education where people agree that it is a good thing to disagree on what each individual means by vocational and technical education.

Sherif, Sherif, and Nebergall also stated (24):

> The problem concerns another source of difficulty in communications: disagreements that reflect the different evaluative categories among individuals dealing with the same universe of discourse. Specifically in dealing with the number and with the categories the individual uses when he is free to divide the universe of discourse with as many or as few divisions as he sees fit.
>
> Apart from the culture of the laboratory and the conventions of the opinion surveyor, individuals typically appraise events without receiving instructions concerning the categories to be used. Individuals do pass judgements on diverse topics with considerable consistency. This fact is evident that persons do possess reference scales for judging the topics in question. Such a reference scale, consisting of a number of categories established through prior experience, may be manifest even when the individual is carefully instructed in the laboratory about what categories to be used and how to apply them. After reviewing the general problem, it can be summarized that research reveals systematic differences in individuals' own categories as a function of past experience and ego-involvement previously published, concerning the number and extent of the categories an individual uses when he is not restricted by instructions that prescribe the categories to be employed or impose a particular distribution of the materials into those categories.

Persons who are strongly committed to a stand on a controversial issue tend to use fewer categories and to distribute their judgments differently than persons who are less concerned with the issue. This finding has been substantiated in several studies. The differences are found even when the subjects are all making objective judgments on the relative positions represented on the issue. The research reviewed does, therefore, support the suggestion made originally by Sherif and Van Hovlin (25) that the way an individual categorizes various positions on a social issue will "indirectly reveal the

individual's attitudes more clearly than the answers given to a standard aptitude scale item when one is conscious of the possible interpretation of others."

Investigators of judgment processes are aware of the significant role of "judgment language" or "response language" in determining the individual's placement in particular items. In experiments, the linguistic categories to be used by the responding are carefully specified in instructions in order that the systematic or symbolistic variables may be controlled by other experimental conditions. It has been found that categories imposed on the respondent by instructions do affect judgment.

Sherif, Sherif, and Nebergall (24) indicate that knowing how well the individual can discriminate under given optimal conditions, the investigator of attitudes must pursue the important question, "How does the individual discriminate without the aid of an authoriative figure 'experimentor' who requires him to use the particular kind and number of categories?"

People today do not accept common measurements for assessing social relationships, social objects, or social events. Thus, the categories used by individuals to evaluate their social worlds are determined primarily by the standards of the groups in which they move or to which they relate psychologically. It is known that statements intermediate between the extreme stands on social issues are placed, on the average, with greater variablity by different respondents than the extreme positions.

Edwards (26) has suggested that the intermediate range sometimes becomes a catch-all for relevant items included in order to increase

the number of responses on an attitude test. On many issues there are few groups taking positions between the extremes; hence, many intermediate statements are not tied to a social reality. It is also highly probable that the language permits more statements of an extreme position, particularly in so far as adjectives and adverbs are used.

Zimbardo (27) presented statements on science to Yale students in introductory psychology, humanities, and science. He used six statements classified by experts as well structured, six classified as double barrelled, six containing a possible ambigious word, and six of intermediate meaning. The subjects were instructed to judge the statements objectively on an eleven point scale to show how favorable each statement was toward science. As expected, the well structured statements were judged with little variation among the subjects. Variability of all other statements was marked; however, the ones containing ambiguity resulted in systematic displacement according to the students' own attitudes toward science.

In answering the question, "What are some of the factors influencing perception," it is well to begin by putting aside the attitude of "naive realism," which suggests that our perceptions simply register accurately what is "out there." It is also necessary to consider what influences distort one's perceptions and judgments of the outside world (25). Johnson (28) indentified some of the considerations in the literature in "A Review of Research on Object Perception." He suggests the following about the procedure:

1. He may be influenced by considerations that he may not be able to identify, responding to cues that are below the threshold of his awareness.
2. When required to perform difficult perceptional judgments, he may respond to irrelevant cues to arrive at a judgment. For example, in trying to assess honesty, it

has been shown that the other person's smiling or not smiling is used as a cue to judge his honesty.

3. In making abstract or intellectual judgments, he may be influenced by emotional factors--what is liked is perceived as correct.
4. He will weigh perceptional evidence coming from respected (or favored) sources more heavily than that coming from other sources.
5. He may not be able to identify all the factors on which his judgments are based. Even if he is aware of those factors he is not likely to realize how much weight he gives to them.

This is not to imply that people respond only to subtle or irrelevant cues or to their emotional factors, they often perceive on the basis of the obvious as well as to the less obvious or less objective.

Brenner (29) showed the importance of subjective influences such as needs, values, cultural background, and interests on the perceptual process. In his concept of perceptional readiness he described the importance of a framework of categories system that the perceiver, himself frames to the perceiving process.

Cantril (30) described perceiving as a "transaction" between the perceiver and the perceived, a process of negotiations in which the perceptional end product is a result both of the influences within the perceiver and the characteristics of the perceived.

A distorting influence, which has been called perceptional defense, was demonstrated by Haire and Grunes (31) to be a source of error in determining what people perceive. In their research they asked, "Do we put blinders on to defend ourselves from seeing those events which might disturb us?" The concept of perceptional defense offers an excellent description of perceptional distortion at work and demonstrates that when confronted with a fact inconsistent with this stereotype already held by a person, the perceiver is able to distort the data

in such a way as to eliminate the inconsistency. Thus, by perceiving inaccurately, he defends himself from having to change his stereotypes.

## Summary

This chapter has covered a broad spectrum of literature concerning the history, development, and foundations of vocational and technical education as well as a description of vocational and technical education in Oklahoma. Other topics included were the roles of education and a background of perceptions. In summarizing this chapter, it should be noted again that the investigator was unable to find any studies similar in nature to this one. However, the related literature did serve as a basis for a better understanding of the subject.

Vocational and technical education has been around longer than any other type of education. It began with the father passing his skills along to his son and so on. Next came apprenticeship programs and then formal instruction. Formal instruction was slow to evolve until the passage of federal legislation. Only recently has the need for vocational and technical education been adequately recognized to promote widespread formal instruction.

The technological, economical, pyschological, and sociological foundations of vocational and technical education influence its specific roles. These roles are interpreted by society's needs as a result of these foundations. Vocational and technical education's roles are a part of the total educational system's roles. It is an important part that cannot be neglected and whose absence would leave a great void in the educational process. Since vocational and technical education's roles are ever changing, the most accurate description of

them is exemplified by the federal and state mandates which change as the need arises.

In Oklahoma vocational and technical education covers many programs and serves thousands of students. However, as needs change and increase so will the need for and expansion of vocational and technical education.

The study of perception is a complex and complicated endeavor and this review of literature reflects only a few highlights. The points most relevant to this study were (1) people seem to evaluate everything according to their biases and experiences; (2) persons who are strongly committed to a stand on a controversial issue tend to use different judgment scales than persons who are less concerned with the issue; (3) the categories used by individuals to evaluate their social worlds are determined primarily by the standards of the groups in which they move or to which they relate psychologically; and (4) needs, values, cultural background, and interests do have an important subjective influence on the perceptual process.

# CHAPTER III

# METHODOLOGY

## Introduction

The purpose of this study was to use the Delphi technique to determine the perceived roles parents, teachers, students, school board members, school administrators, and school counselors have of vocational and technical education. The investigator proposed to find a rank order of roles as to the priority established by the way the participants rated the importance of the statements of roles. Another aspect investigated was whether or not there was any difference in the ratings given to the roles by the various groups and the various planning districts.

The purpose of this chapter is to describe the method by which the sample was selected, describe the Delphi technique, the design of the instrument, and the procedure of data collection and analysis.

## Selection of the Sample

The population used in this study was a randomly selected stratified sample. All of the participants were Oklahomans who are in some way directly involved with secondary education. The sample consisted initially of 320 participants.

Of the 320 participants, there were 55 in each of the following six groups: (1) parents, (2) teachers, (3) school board members, (4)

school administrators, (5) school counselors, and (6) students. Five people from each of these six groups were from each of the eleven planning districts in the state (Appendix A) except for the student and parent groups. The number five was arbitrarily chosen, thus there were thirty participants per planning district.

The names of the participants were chosen in various ways. The list of school administrators was made by taking the names out of the Oklahoma State Department of Education Directory and sorting them according to planning districts. From this list five names were selected at random from each planning district.

The school board members were selected by the same procedure as the administrators. Again, there were 55 randomly selected and of these there were five from each planning district.

The names of school counselors were obtained from the Oklahoma Research Coordinating Unit's mailing list of high school counselors. This list included counselors in comprehensive and vocational-technical schools. These names were grouped by planning district and five names were randomly selected from each district. There were 55 school counselors selected as participants.

The names of teachers were selected in a somewhat different manner. The school districts were grouped by planning district. From this list five school districts were randomly selected. The Oklahoma State Department of Education personnel file was pulled on the 55 randomly selected schools and one high school teacher's name was randomly selected from the list on file. This procedure yielded 55 participants for the teacher group, five from each of the eleven planning districts.

The procedure used for obtaining teachers' names was repeated in order to obtain another list of randomly selected teachers. These teachers were sent a letter asking them to furnish the name of one high school student by the following criteria: (1) using the grade book, (2) use the third roster, and (3) select the eighth name. If they didn't have a third roster, they were instructed to use the last one and select the eighth name. The teachers were asked to write the name and address of the student at the bottom of the letter and return it in an enclosed postage-paid return envelope (Appendix B).

The list of student participants was obtained by an identical but separate procedure as used to obtain the parents' names. Since the names of the parents were not readily available by this method the letters were addressed to: "To the parents of."

Every effort was made to keep the sample as random and unbiased as the investigator could see possible. In the participant selection process no effort was made to determine if any of the participants were directly involved in vocational and technical education or not. The names were chosen just as the random selection procedure dictated and by no other criteria or judgment. In a few instances, two participants were selected from the same school district; this occurred by chance due to random selection.

## The Delphi Method

The Delphi method is a name that has been applied to a technique used for obtaining a group response of a panel. It is an orderly, planned program of sequential individual interrogations using opinionnaires. The method was originally used by Rand Corporation as a tool

for long-range forecasting by experts. It was chosen as a research technique in this study in order to get totally unstructured opinions from the participants; it was not applied as a forecasting tool.

In long-range forecasting, everything that is not knowledge may be referred to as speculation. A vast amount of information for which there is no solid evidence is left out. This area may be referred to as opinion, and opinion may be referred to as wisdom, insight, informed judgement or experience (32).

Some recent experiments that have been performed by Rand Corporation indicated that when opinions are involved face-to-face discussion may result in a group opinion that is less accurate than simply the average of the individual opinions without discussion (33).

Delphi, very popular with industry forecasters, comes under severe criticism from Dr. Marvin Cetron, President of Forecasting International, Ltd. He says, "Delphi has done more harm than good. You can't just ask people what they think; if you have nothing to back up subjective opinion, you end up with garbage." He went on to say that "Delphi forecasters have a habit of calling upon the same community of people to participate in the forecasts."

Industry representatives on the other hand boost Delphi. "It is one of the best speculative techniques to foresee things that upset trends," says Donald Pyke, a former forecaster (34).

Early Delphi studies were concerned mainly with improving the statistical treatment of individual opinions. Rand Corporation performed an experiment in which general information type questions were asked. The questions were thought to have the features ascribable to opinion when respondents were asked to answer. The subjects did not

know the answers but they did have other relevant information that enabled them to make estimates. The results can be summarized as follows: (35)

1. On the initial round a wide spread of individual answers typically followed;
2. With interaction and feedback, the distribution of individual responses progressively narrowed or converged; and
3. More often than not, the group response becomes more accurate.

Reliabilities were found by the split-half technique to range from .4 to 16. Reliabilities were obtained by computing the correlation between subjects' scores on odd and even questions (36). These were felt by the experimenter to be high enough to indicate a reasonable amount of consistency in the subjects' relative ability to estimate answers to questions of a general information type.

The general Delphi procedure is to ask a selected group of participants to answer a question in statement form. These statements are collected by the investigator and combined to eliminate redundancy or reworded for clarity. The revised statements are presented to the participants again for their rating for agreement. The mean responses are computed by the investigator and the items are ranked and again returned to the participants for their agreement of the overall rankings. This process is continued until a group consensus is reached.

The Delphi procedure used in this study was as follows:

1. The participants were asked to answer a question with five statements.
2. The statements were reworded and combined by the investigator to eliminate redundancy and ambiguity to produce an opinionnaire.

3. A list of revised statements was sent back to the participants for their rating of the statements as to importance on an eleven-point continuum scale.

A mean response for each item was computed and the items were ranked as to their importance according to the participants' ratings.

The Delphi procedure in this study was carried only two rounds because it was not the intent of the study to reach a group consensus. Instead, it was the purpose to determine by an unstructured and unbiased external method a true expression of the participants' perception of the role of vocational and technical education. This was a method of letting the people interact with each other without exerting any initial influence on one another's opinions; also, this approach tended to keep vocational and technical educator's and the investigator's biases out of the opinionnaire.

To get around the face-to-face interaction, which may result in a less accurate group opinion, the Delphi is an effective method. The basic characteristics of the Delphi procedure are: (1) anonymity, (2) iteration with controlled feedback, and (3) statistical group response (37).

Anonymity is achieved by using questionnaires or other formal channels of communication where specific responses are not associated with individual member groups. This reduces group pressure and individual pressure.

Iteration consists in performing the interaction among members of the group in several stages. At the beginning of each stage the results of the previous stage are summarized and fed back to members of the group and they are again asked to reassess their answers in

light of what the entire group thought on the previous round. The opinion of every member is reflected in the group response.

## The Opinionnaire

The questionnaire used for the survey was developed by using the Delphi technique generated by the randomly selected participants. The Delphi technique was chosen because there was no method known that would better represent the input of the sample for this type of study.

Traditionally, the "Delphi Technique" has been used for achieving a consensus for forecasting by a panel of experts (39). It is beginning to be used more and more to collect opinions as it was used in this study. The procedure to be used to generate an opinionnaire via the Delphi technique is outlined in the following paragraphs.

After the participants had been selected, a letter was sent to them asking for their participation, along with a question for which they were to submit between one and five responses that they felt best applied (Appendix B). The question asked them to list what they thought the role of vocational and technical education is in Oklahoma. The respondents returned these by mail.

In the next step the investigator reworded or combined all like responses and condensed the list of statements to eliminate redundancy and ambiguity to produce the opinionnaire. A list of these revised statements was sent back to the participants for their ratings as to how they perceive the importance or unimportance of the statements as to the role of vocational and technical education (Appendix C). An eleven point continuous scale was provided for the responses to each

item; one being most important and eleven being least important. Again, this was returned by mail.

The responses were combined for each item in order to give mean responses of the ratings on a scale from one to eleven. The statements were then ranked according to their order of importance as determined by the participants' ratings. The groups' overall ratings were ranked and then each individual group's ratings of the statements were ranked. After the mean ratings were computed and the statements ranked, the data was ready for statistical treatment as discussed in the next section.

## Statistical Treatment of Data

In order to adequately answer research questions two and three, the investigator relied on statistical treatment of the data. These questions were asking whether or not there was a difference in the ratings of the statements among groups and also among the participants of the different planning districts. To accomplish the matching of statistical tests to the characteristics of the data certain underlying assumptions had to be met. Since ordinal data was involved, it allowed the use of a parametric statistic (39).

There was a need for testing for significant differences between means of two or more groups. The statistical test used to check this difference was the one-way analysis of variance. Three assumptions that were met to perform analysis of variance are: (1) the measures within each category or subgroup must represent random samples, (2) the variances within the subgroups are homogeneous and not significantly different among themselves, and (3) the population data from which the subgroup samples were drawn is normally distributed. The data met these assumptions.

In previous years it was considered that the one-way analysis of variance was only properly used in experimental studies where all groups were randomly selected (41). It is now acceptable to use the statistic for measuring the difference among the responses of groups on the same measuring instrument.

The one-way analysis of variance test was run on each individual statement to test the difference of response among the groups and the planning districts. When there was a significant difference among the groups or the planning districts the Duncan's Multiple Range Test for Nearly Equal Ns was used to make multiple comparisons to locate the difference between groups (42). This allowed each group to be compared against all of the others by using already existing data.

# CHAPTER IV

# PRESENTATION AND ANALYSIS OF THE DATA

## Introduction

The purpose of this study was to determine parents', teachers', school board members', school administrators', school counselors', and students' perceptions of the roles of vocational and technical education in Oklahoma. This was accomplished by using the Delphi Technique and asking the six mentioned groups what they perceived the role of vocational and technical education to be. The results are presented two different ways; first by the groups' rankings of the Delphi statements and second by an analysis of whether there was a difference in the mean ratings given to these statements by the groups. Chapter V is devoted to the summary, conclusions, recommendations, and implications based on the data and analysis presented in this chapter.

## The Participants' Return Rates

The study initially involved 469 persons selected at random. Of these 320 were actually participants in the Delphi study. The other 149 were teachers who were asked to randomly select students' names for the parent and student list. Table I shows the results of the number of returns for the teachers who were asked to randomly select students' names for the parent and teacher list. Table II shows the returns for all of the groups participating in the Delphi study.

TABLE I

NUMBER AND PERCENTAGES OF RETURNS OF TEACHERS SELECTING STUDENTS' NAMES FOR PARENT AND STUDENT SAMPLE

| Groups | N | Total Response | Percent |
|---|---|---|---|
| Teachers Selecting Students' Names for Parent Sample | 74 | 50 | 68 |
| Teachers Selecting Students' Names for Student Sample | 75 | 50 | 67 |

Of the 149 teachers asked to select students' names, a total of 100 replied. A follow-up letter was sent to those who did not reply within ten days after the first request was mailed. Out of the total 149 letters initially mailed, five or 3.3 percent were returned because of wrong addresses. The goal of this procedure was to obtain 55 names for the parents' group and 55 names for the students' group to be used as Delphi participants. In each case only 50 names were obtained. A check was made to determine if the lack of these ten names would bias the findings of the study. The check revealed that the names received were evenly distributed over the state and that the absence of five names in the parent and student groups would not bias the findings.

Revealed in Table II are the percentages of returns for all six groups of participants. Of the 320 initial participants, 89 completed both correspondence sheets one and two. During the course of the study, ten letters were returned because of incorrect addresses. Five of these letters were to students or parents for whom randomly selected

TABLE II

NUMBER AND PERCENTAGES OF PARTICIPANT RETURNS

| Groups | Number Sent | Returns | | | |
|---|---|---|---|---|---|
| | | Correspondence I | | Correspondence II | |
| | | N | % | N | % |
| Parents | 50 | 5 | 10 | 3 | 6 |
| Teachers | 55 | 26 | 47 | 15 | 27 |
| School Board Members | 55 | 23 | 42 | 15 | 27 |
| School Administrators | 55 | 27 | 49 | 21 | 38 |
| School Counselors | 55 | 33 | 60 | 24 | 44 |
| Students | 50 | 14 | 28 | 11 | 22 |
| Overall | 320 | 128 | 40 | 89 | 28 |

teachers were asked to select and return to the investigator. Of the 100 names of students for the parents' and students' groups, this accounted for six percent of the non-respondents. Two correspondence sheets number two were returned partially completed and therefore unusable. Three people wrote back after receiving correspondence sheet number one and expressed their desires to not participate. Of these three, two responded negatively and the other saying he appreciated being selected but didn't feel he had the time to do the study justice. One person wrote back after receiving correspondence sheet number two

and stated he did not feel that his original statements were adequately expressed. Five percent of the attrition rate can be attributed to wrong addresses and people not desiring to participate. It should also be noted that seventy percent of the participants who responded to correspondence sheet one responded to correspondence sheet two.

## Results of the Data Pertaining to Research Question Number One

The data presented in this section is focused upon the objective of answering the first research question.

Research Question Number One

What are the groups' rankings of the statements of perceived roles of vocational and technical education?

In order to satisfy this question, the mean ratings of the statements obtained from correspondence sheet two were used. The statements were ranked from these ratings in their order of importance in descending order. The lower the mean score, the greater the importance because the continuum scale on correspondence sheet two ranged from 1 being most important to 11 being least important. These mean scores are listed in Appendix D.

Each of the six groups' responses were ranked as well as the groups' overall responses. Provided in Table III are the rankings of statements by group and overall responses. The statements are arranged in the table by the groups' overall ranking obtained from the total mean responses. The individual groups' rankings obtained from their mean responses are indicated to the left of the overall ranking.

TABLE III

OVERALL AND INDIVIDUAL GROUPS' RANKINGS OF THE PERCEIVED ROLES OF VOCATIONAL AND TECHNICAL EDUCATION

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| | First Quartile | | | | | | | |
| 62. | To assist students in learning those skills for which they have an interest. | 6.5 | 12.5 | 3 | 17 | 5.5 | 7 | 1 |
| 18. | To teach good work habits and the importance of jobs. | 2.5 | 5.5 | 24 | 1 | 21 | 29 | 2 |
| 58. | To furnish job skills and motivating alternatives to those persons who don't desire or who are unable financially to attend college. | 2.5 | 21.5 | 1 | 15 | 11.5 | 17.5 | 3 |
| 39. | To provide experiences which will promote desirable personal characteristics, good working habits, personal pride, and satisfaction in doing a good job. | 29 | 4 | 18 | 5 | 1 | 2.5 | 4 |
| 6. | To assist students in learning those skills for which they have an aptitude. | 19 | 9 | 4.5 | 7 | 11.5 | 32 | 5 |
| 49. | To help students develop the initiative and dependability to hold down a job. | 12.5 | 19.5 | 33.5 | 2 | 5.5 | 11 | 6 |

TABLE III (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 1. | To provide technical training for unskilled workers. | 34.5 | 32 | 2 | 20 | 2 | 2.5 | 7 |
| 57. | To provide students occupational classroom instruction and on-the-job training while in school. | 12.5 | 1.5 | 27.5 | 29.5 | 13.5 | 13.5 | 8 |
| 40. | To provide a sense of worth and achievement to the less capable individual. | 12.5 | 27.5 | 24 | 11.5 | 7 | 20.5 | 9 |
| 41. | To provide a program whereby mentally handicapped students can be taught some skill to become self-sufficient and improve their self image. | 19 | 23.5 | 31 | 9 | 32.5 | 28 | 10 |
| 47. | To offer a variety of employment training opportunities so students may find employment upon high school completion. | 45 | 10 | 10.5 | 18.5 | 9 | 5 | 11.5 |
| 19. | To provide basic skill training and meet the needs of those with fewer abilities so they might become useful productive wage earners. | 34.5 | 12.5 | 6 | 5 | 8 | 47 | 11.5 |
| 31. | To work closely with business, labor, industry, and the community, and involve them in the education of people. | 12.5 | 12.5 | 13.5 | 13.5 | 5.5 | 54 | 13 |

TABLE III (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 27. | To help people feel self-sufficient, self-competent and pride in their abilities so they may become better employees. | 19 | 5.5 | 36 | 9 | 21 | 40 | 14 |
| 44. | To offer each high school student a larger area of choice in curriculums. | 2.5 | 41.5 | 24 | 32.5 | 30 | 4 | 15.5 |
| 59. | To dignify, upgrade, and improve student and community attitudes toward the work ethic and non-executive occupations. | 12.5 | 19.5 | 19.5 | 21.5 | 15.5 | 29.5 | 15.5 |
| | Second Quartile | | | | | | | |
| 17. | To teach skills for locating, applying for, and interviewing for a job. | 12.5 | 7.5 | 37 | 18.5 | 13.5 | 44 | 17.5 |
| 54. | To provide a student the opportunity to explore occupational possibilities. | 29 | 1.5 | 27.5 | 29.5 | 21 | 19 | 17.5 |
| 53. | To make education pertinent to potential dropouts and offer opportunities to these individuals that will encourage them to stay in school through twelve grades. | 51 | 16.5 | 27.5 | 3 | 30 | 2.5 | 19 |

TABLE III (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 55. | To provide skill training for the personnel needs of business and industry in the state and surrounding states. | 12.5 | 21.5 | 4.5 | 27 | 32.5 | 42.5 | 20 |
| 60. | To give students information as to the types of job skills, the types of jobs available, and the types of training available to them. | 6.5 | 7.5 | 15.5 | 21.5 | 23.5 | 53.5 | 21 |
| 61. | To provide skill training for students after the completion of high school. | 23.5 | 43.5 | 8 | 11.5 | 19 | 29.5 | 22 |
| 23. | To provide present and future workers the training opportunity to broaden their skills and to increase earning powers. | 29 | 34.5 | 8 | 29.5 | 26 | 33 | 23 |
| 15. | To provide a background for understanding the need for continuing education and training in the various career areas. | 40 | 25 | 15.5 | 23.5 | 38 | 34 | 24 |
| 50. | To provide a broader scope of training in job skills not already offered by the public schools because of the financial burden on individual districts. | 19 | 16.5 | 19.5 | 9 | 17.5 | 50.5 | 25 |

TABLE III (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 32. | To provide upgrading of an individual's skills for advancement in present job. | 29 | 37 | 17 | 25 | 15.5 | 41 | 26 |
| 56. | To strengthen the state's and community's ability to attract industry by increasing the available manpower. | 29 | 37 | 10.5 | 35 | 28 | 25.5 | 27 |
| 13. | To develop a realistic self-understanding regarding decisions relative to career choice in a vocation that they enjoy rather than to be in a job just for the sake of a livelihood. | 40 | 3 | 31 | 16 | 26 | 55 | 28 |
| 20. | To build attitudes which develop self-discipline in work, study, and play. | 40 | 12.5 | 33.5 | 5 | 30 | 53 | 29 |
| 46. | To stress the honor and importance of technical skills in preparing for a vocation and a livelihood. | 6.5 | 34.5 | 8 | 32.5 | 10 | 53.5 | 30 |
| 52. | To provide high school dropouts and the unemployed the opportunity to develop basic skills in order to become gainfully employed. | 51 | 32 | 12 | 13.5 | 5.5 | 44.5 | 31 |

TABLE III (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 43. | To work harder at changing the attitudes of the general public, especially administrators, teachers, students, and parents, about vocational-technical education so a more balanced quality of students will attend vocational-technical training. | 29 | 52 | 21.5 | 42 | 17.5 | 8.5 | 32 |
| 2. | To provide training for those people who are especially adaptable to manual arts. | 29 | 27.5 | 21.5 | 37 | 23.5 | 54 | 33 |
| | Third Quartile | | | | | | | |
| 11. | To provide students with education they can use in everyday life such as management of time, talents, money, and energy and how to work on a set time schedule. | 47.5 | 16.5 | 35 | 29.5 | 39 | 32 | 34 |
| 51. | To provide programs to retrain adults for better jobs or new jobs as they are created. | 51 | 49 | 13.5 | 26 | 26 | 25.5 | 35 |
| 45. | To serve as an integrative factor between technical and academic classes to help make the study of English and math relevant. | 6.5 | 47.5 | 42 | 40 | 44 | 37 | 36 |

TABLE III (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N =24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 38. | To provide a better understanding of labor and management. | 40 | 39.5 | 45 | 38 | 35 | 42.5 | 37 |
| 30. | To be very strict about vocational-technical program requirements and qualifications for students and exercise caution in sending out graduates who cannot do the required work. | 2.5 | 54 | 38.5 | 36 | 37 | 59 | 38 |
| 26. | To reduce the welfare rolls by helping a person find his role in life. | 57 | 50.5 | 31 | 23.5 | 36 | 28 | 39 |
| 48. | To provide the opportunity through youth organizations for students to develop the leadership potential and to become dedicated citizens. | 55 | 43.5 | 40 | 34 | 40 | 22.5 | 40 |
| 5. | To provide skill training in areas that would complement a college education. | 23.5 | 27.5 | 38.5 | 55 | 56.5 | 45 | 41 |
| 14. | To provide students the opportunity to learn how to run a self-employed business. | 23.5 | 47.5 | 43 | 40 | 52 | 55 | 42 |
| 24. | To provide job skills for students needing to earn their way through further schooling, such as college. | 12.5 | 45 | 52 | 50 | 60 | 32 | 43 |

TABLE III (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 29. | To provide extra training for partially trained people, particularly hospital personnel. | 34.5 | 34.5 | 48.5 | 47 | 43 | 50 | 44 |
| 42. | To provide general education in the disciplines (English, social studies, and math) that will be needed in the technical and occupational fields. | 51 | 56.5 | 41 | 45.5 | 45 | 20.5 | 45 |
| 3. | To help students analyze and solve business and economic problems with reasonable judgment. | 40 | 23.5 | 48.5 | 54 | 48 | 46 | 46 |
| 37. | To offer training in photography, wildlife conservation, engineering, typing, and physical education. | 23.5 | 58.5 | 50.5 | 60 | 50 | 25.5 | 47 |
| 64. | To provide training in the areas of dentistry, optometry, and laboratory and x-ray technicians. | 19 | 60 | 53.5 | 58 | 53 | 40.5 | 48 |
| 33. | To further skills for those not satisfied with present occupations. | 34.5 | 50.5 | 27.5 | 45.5 | 34 | 55 | 49 |
| | Fourth Quartile | | | | | | | |
| 4. | To help individuals improve their home environment and the quality of personal and family life. | 62.5 | 16.5 | 46 | 44 | 41 | 49 | 50 |

TABLE III (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 28. | To provide agriculture information and experience that will develop a knowledge of the science of agriculture and create and nurture a love of farm life. | 45 | 46 | 59 | 61 | 50 | 61 | 51 |
| 10. | To provide basic homemaking and nutritional skills with utilitary purposes. | 51 | 32 | 57 | 57 | 51 | 72 | 52 |
| 7. | To provide information to students regarding financial aid available. | 40 | 30 | 47 | 51 | 63 | 79 | 53 |
| 9. | To develop an awareness of responsibility as a member of the society and the legal aspects connected with these responsibilities. | 60 | 27.5 | 53.5 | 40 | 42 | 64 | 54 |
| 8. | To provide students with moral training for the business world and human relationships. | 62.5 | 41.5 | 55.5 | 43 | 46 | 54 | 55 |
| 36. | To offer training in the operation and maintenance of commercial transportation carriers. | 45 | 62 | 55.5 | 56 | 54.5 | 59.5 | 56 |
| 21. | To give a student a skill which he may use much later in life such as a second occupation (perhaps after retirement.) | 56 | 39.5 | 63 | 52.5 | 54.5 | 52 | 57 |

TABLE III (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 65. | To provide training in interior and decorative structural design. | 40 | 61 | 61 | 59 | 58 | 61 | 58 |
| 63. | To provide physical therapy and human rehabilitation services for students. | 60 | 58.5 | 44 | 62 | 47 | 31.5 | 59 |
| 12. | To offer opportunities to fourteen and fifteen year olds as helpers or aides in various occupations. | 57 | 53 | 58 | 49 | 56.5 | 49 | 60 |
| 35. | To offer training in the field of petroleum production. | 47.5 | 63 | 50.5 | 63 | 62 | 45 | 61 |
| 16. | To provide enrichment courses needed for a well-rounded education and skills that might be used creatively for leisure time. | 54 | 56.5 | 62 | 48 | 61 | 59 | 62 |
| 25. | To help break down the common school ideology and the practice of a common education for all. | 64 | 55 | 60 | 52.5 | 59 | 77 | 63 |
| 34. | To improve the student's role in athletics for those interested in sports. | 60 | 65 | 64 | 64 | 64 | 59 | 64 |
| 22. | To be used as a catch-all to rid other classes of undesirable students. | 65 | 65 | 65 | 65 | 65 | 65 | 65 |

The statements that were ranked in the first quartile from the overall mean ratings touch upon several areas. The statements that fell in this quartile as being the most important express skill training as the underlying role. The prime difference in these statements dealing with skill training is in what the purpose for it is. These statements stated purposes of skill training for employment upon high school completion, for unskilled workers, for students with certain aptitudes, for students possessing fewer abilities, for students who have such interests, and for students who do not aspire toward a baccalaureate degree. The other types of statements ranked in the first quartile as being most important roles consisted of guidance in career choices, promoting work habits, developing positive self concepts, and inspiring people to be productive in society. Of the sixteen items in the first quartile that were not directly related to the others, statement number 31, "To work closely with business, labor, industry, and the community, and involve them in the education of people," ranked thirteenth. However, students ranked this item as fifty-fourth where all other groups ranked it in the range from 5.5 to 12.5.

As previously mentioned many of the statements ranked in the fourth quartile did involve areas of specific curriculums. These were in the areas of homemaking, petroleum production, transportation, agriculture, engineering, outdoors education, architecture, and health careers. One statement which was ranked sixty-fourth dealt with athletics for those interested in sports.

Other statements ranking in the bottom quartile mentioned such things as providing information regarding financial aid available to students, job training for early youth employment as aids or helpers

or so they may earn their way through college, and to break down the common school ideology and the practice of a common education for all. Statement 42, which ranked forty-fifth, stated that general education should be provided by vocational and technical education when needed in an occupational field. One participant's sincerity is questioned because he listed the following statement as a role of vocational and technical education, "To be used as a catch-all to rid other classes of undesirable students." Absurd as it sounds, attention should be given to the fact that several respondents did rate this item higher than eleven on the continuum. However, it is encouraging to note this statement's resultant ranking was sixty-fifth in all groups.

The statements that were ranked in the second and third quartile generally were of the nature of general education roles. A few statements related to occupational training did fall in these quartiles, but the more occupational training oriented the closer they were to the top of the second quartile. And conversely, the more general education oriented and intangible, the closer they were to the bottom of the third quartile. The statements that ranked in between were aimed at self-improvement, self-understanding, moral responsibility, and attitudes.

As for the perceived roles which ranked in the fourth quartile, various areas such as specific curriculums and intangible statements were included. These statements do not relate to the roles of vocational and technical education and all were properly ranked by the participants as being least important. Most of these sixteen statements were "one of kind" responses returned on correspondence sheet number one. The research felt it necessary and obligatory to include these statements

in correspondence sheet number two because they did reflect feelings of some of the participants, and it was the purpose of this study to gather these feelings and have the particpants evaluate the importance of each perceived role.

The following is a list of the statements which were ranked as the five most important statements by the groups. The five statements which received the highest ranking of importance by the combined groups were:

- To assist students in learning those skills for which they have an interest. (Ranked 1)
- To teach good work habits and the importance of jobs. (Ranked 2)
- To furnish job skills and motivating alternatives to those persons who don't desire or who are unable financially to attend college. (Ranked 3)
- To provide experiences which will promote desirable personal characteristics, good working habits, personal pride, and satisfaction in doing a good job. (Ranked 4)
- To assist students in learning those skills for which they have an aptitude. (Ranked 5)

The parent group gave these statements rankings as being the five most important:

- To teach good work habits and the importance of jobs. (Ranked 2.5)
- To be very strict about vocational-technical programs requirements and qualifications for students and exercise caution in sending out graduates who cannot do the required work. (Ranked 2.5)
- To offer each high school student a larger area of choice in curriculums. (Ranked 2.5)
- To furnish job skills and motivating alternatives to those persons who don't desire or who are unable financially to attend college. (Ranked 2.5)

The teacher group rated these statements as the most important:

- To provide a student the opportunity to explore occupational possibilities. (Ranked 1.5)
- To provide students occupational classroom instruction and on-the-job training while in school. (Ranked 1.5)
- To develop a realistic self understanding regarding decisions relative to career choice in a vocation that they enjoy rather than to be in a job just for the sake of a livelihood. (Ranked 3)
- To provide experiences which will promote desirable personal characteristics, good working habits, personal pride, and satisfaction in doing a good job. (Ranked 4)
- To help people feel self-sufficient, self-competent and pride in their abilities so they may become better employees. (Ranked 5.5)
- To teach good work habits and the importance of jobs. (Ranked 5.5)

School board members rated the following statements as being the five most important:

- To furnish job skills and motivating alternatives to those persons who don't desire or who are unable financially to attend college. (Ranked 1)
- To provide technical training for unskilled workers. (Ranked 2)
- To assist students in learning those skills for which they have an interest. (Ranked 3)
- To assist students in learning those skills for which they have an aptitude. (Ranked 4.5)
- To provide skill training for the personnel needs of business and industry in the state and surrounding states. (Ranked 4.5)

School administrators rated these statements as the most important:

- To teach good work habits and the importance of jobs. (Ranked 1)
- To help students develop the initiative and dependability to hold down a job. (Ranked 2)

- To make education pertinent to potential dropouts and offer opportunities to these individuals that will encourage them to stay in school through twelve grades. (Ranked 3)

- To provide basic skill training and meet the needs of those with fewer abilities so they might become useful, productive wage earners. (Ranked 5)

- To build attitudes which develop self-discipline in work, study, and play. (Ranked 5)

- To provide a sense of worth and achievement to the less capable individual. (Ranked 5)

School counselors rated the following statements as being the six most important:

- To provide experience which will promote desirable personal characteristics, good working habits, personal pride, and satisfaction in doing a good job. (Ranked 1)

- To provide technical training for unskilled workers. (Ranked 2)

- To work closely with business, labor, industry, and the community and involve them in the education of people. (Ranked 5.5)

- To help students develop the initiative and dependability to hold down a job. (Ranked 5.5)

- To provide high school school dropouts and the unemployed the opportunity to develop basic skills in order to become gainfully employed. (Ranked 5.5)

- To assist students in learning those skills for which they have an interest. (Ranked 5.5)

Students rated the following five statements as being the most important:

- To provide technical training for unskilled workers. (Ranked 2.5)

- To make education pertinent to potential dropouts and offer opportunities to these individuals that will encourage them to stay in school through twelve grades. (Ranked 2.5)

- To provide experiences which will promote desirable personal characteristics, good working habits, personal pride and satisfaction in doing a good job. (Ranked 2.5)

- To offer each high school student a larger area of choice in curriculums. (Ranked 4)
- To offer a variety of employment training opportunities so students may find employment upon high school completion. (Ranked 5)

Tied ranks are indicated by non-integers or by duplicate numbers. This occurrence necessitated the inclusion of more than five statements as being rated "most important" by some groups.

In looking at the statements above which were ranked as the five most imporant by the groups, several statements were ranked as such by more than one group. The statement, "To teach good work habits and the importance of jobs," was ranked among the five most important statements by the combined groups, parents, teachers, and school administrators. Counselors, students, and school board members all ranked "To provide technical training for unskilled workers as being most important roles as where the other groups' rankings ranged from 20 to 34.5. Parents and school board members ranked "To furnish job skills and motivating alternatives to those persons who don't desire or who are unable financially to attend college" among the top five and it ranked third from the combined groups' overall ratings. The statement which received the most agreement in ranking of importance was "To provide experience which will promote desirable personal characteristics, good working habits, personal pride, and satisfaction in doing a good job." Teachers, counselors, students, and the combined groups all ranked it among the top five. Students and parents ranked the statement "To offer each high school student a larger area of choice in curriculums" 4.0 and 2.5 respectively. The statement "To assist students in learning those skills for which they have an interest," was ranked among the top five by counselors, school board members, and

the combined groups. The groups who had the smallest number of agreements among the ranking of statements in the five most important were school administrators and teachers. School board members had the most agreements of rankings in the five most important statements.

As an observation of all of the statements, the reader might conclude that they appear to span the entire spectrum of total education roles. The statements which did "zero in" on the roles of vocational and technical education, in the majority of instances, did receive the highest rankings. Conversely, those statements which least focused on this area received the lowest rankings. However as previously pointed out, there are some exceptions. These exceptions are best seen by reviewing Table III since the process of individually describing these would be too involved and lengthy. The reason for these discrepancies lie in extreme ratings by one or several of the groups. The process of determining where there were significant differences among groups was the purpose of the next section.

## Research Question Number Two

Is there any difference among the groups as to their perceived roles of vocational and technical education?

To arrive at an answer for this question, the analysis of variance statistical test was performed on each of the sixty-five statements. This test pointed out any differences among the groups' mean responses to each statement. Table IV indicates the results of the statistical test for each statement, at what level the "F" value is significant, and if it is significant at the .05 level. In order to determine precisely among which groups this difference lies, the Duncan's Multiple Range

TABLE IV

THE RESULTS OF THE ONE-WAY ANALYSIS OF VARIANCE AMONG THE MEAN RATINGS OF THE PARTICIPANTS BY GROUPS

| | Statement | F | Level of Significance P |
|---|---|---|---|
| 1. | To provide technical training for unskilled workers. | 2.97043* | .0381 |
| 2. | To provide training for those people who are especially adaptable to manual arts. | 1.48410 | .2268 |
| 3. | To help students analyze and solve business and economic problems with reasonable judgment. | 1.32930 | .2725 |
| 4. | To help individuals improve their home environment and the quality of personal and family life. | 1.33636 | .2702 |
| 5. | To provide skill training in areas that would complement a college education. | 1.04363 | .3808 |
| 6. | To assist students in learning those skills for which they have an aptitude. | .80753 | .5026 |
| 7. | To provide information to students regarding financial aid available. | 2.59058 | .0600 |
| 8. | To provide students with moral training for the business world and human relationships. | .34956 | .7922 |
| 9. | To develop an awareness of responsibility as a member of the society and the legal aspects connected with these responsibilities. | 1.44293 | .2381 |
| 10. | To provide basic homemaking and nutritional skills with utilitary purposes. | .89273 | .5475 |

TABLE IV (CONTINUED)

| Statement | F | Level of Significance P |
|---|---|---|
| 11. To provide students with education they can use in everyday life such as management of time, talents, money, and energy and how to work on a set time schedule. | .12074 | .9468 |
| 12. To offer opportunities to fourteen and fifteen year olds as helpers or aides in various occupations. | .63288 | .6068 |
| 13. To develop a realistic self understanding regarding decisions relative to career choice in a vocation that they will enjoy rather than to be in a job just for the sake of a livelihood. | 1.12339 | .3470 |
| 14. To provide students the opportunity to learn how to run a self-employed business. | .31380 | .8173 |
| 15. To provide a background for understanding the need for continuing education and training in the various career areas. | .36517 | .7813 |
| 16. To provide enrichment courses needed for a well-rounded education and skills that might be used creatively for leisure time. | 3.06036* | .0342 |
| 17. To teach skills for locating, applying for, and interviewing for a job. | 1.61023 | .1952 |
| 18. To teach good work habits and the importance of jobs. | 1.31960 | .2756 |
| 19. To provide basic skill training and meet the needs of those with fewer abilities so they might become useful, productive wage earners. | .76192 | .5227 |

TABLE IV (CONTINUED)

| Statement | F | Level of Significance P |
|---|---|---|
| 20. To build attitudes which develop self-discipline in work, study, and play. | 2.53299 | .0643 |
| 21. To give a student a skill which he may use much later in life such as a second occupation (perhaps after retirement). | 3.19803* | .0291 |
| 22. To be used as a catch-all to rid other classes of undesirable students. | 1.57804 | .2028 |
| 23. To provide present and future workers the training opportunity to broaden their skills and to increase earning powers. | 1.85765 | .1451 |
| 24. To provide job skills for students needing to earn their way through further schooling, such as college. | .73752 | .5368 |
| 25. To help break down the common school ideology and the practice of a common education for all. | .31271 | .8181 |
| 26. To reduce the welfare rolls by helping a person find his role in life. | 2.46917 | .0694 |
| 27. To help people feel self-sufficient, self-competent, and pride in their abilities so they may become better employees. | 2.77179* | .0483 |
| 28. To provide agriculture information and experience that will develop a knowledge of the science of agriculture and create and nurture a love of farm life. | .90496 | .5537 |
| 29. To provide extra training for partially trained people, particularly hospital personnel. | .51155 | .6800 |

TABLE IV (CONTINUED)

| Statement | F | Level of Significance P |
|---|---|---|
| 30. To be very strict about vocational-technical program requirements and qualifications for students and exercise caution in sending out graduates who cannot do the required work. | 1.43119 | .2415 |
| 31. To work closely with business, labor, industry, and the community and involve them in the education of people. | 1.28630 | .2866 |
| 32. To provide upgrading of an individual's skills for advancement in present job. | 2.29235 | .0859 |
| 33. To further skills for those not satisfied with present occupations. | 2.71346 | .0519 |
| 34. To improve the student's role in athletics for those interested in sports. | 2.46027 | .0702 |
| 35. To offer training in the field of petroleum production. | .71512 | .5499 |
| 36. To offer training in the operation and maintenance of commercial transportation carriers. | .52153 | .6733 |
| 37. To offer training in photography, wildlife conservation, engineering, typing, and physical education. | .10173 | .9579 |
| 38. To provide a better understanding of labor and management. | 1.38201 | .2560 |
| 39. To provide experiences which will promote desirable personal characteristics, good work habits, personal pride, and satisfaction in doing a good job. | 3.78884* | .0147 |

TABLE IV (CONTINUED)

| | Statement | F | Level of Significance P |
|---|---|---|---|
| 40. | To provide a sense of worth and achievement to the less capable individual. | 3.62707* | .0177 |
| 41. | To provide a program whereby mentally handicapped students can be taught to become self-sufficient and improve their self image. | 2.22102 | .0937 |
| 42. | To provide general education in the disciplines (English, social studies, and math) that will be needed in the technical and occupational fields. | .36148 | .7839 |
| 43. | To work harder at changing the attitudes of the general public, especially administrators, teachers, students, and parents, about vocational-technical education so a more balanced quality of students will attend vocational-technical training. | 3.69141* | .0164 |
| 44. | To offer each high school student a larger area of choice in curriculums. | 1.56887 | .2050 |
| 45. | To serve as an integrative factor between technical and academic classes to help make the study of English and math relevant. | .15986 | .9224 |
| 46. | To stress the honor and importance of technical skills in preparing for a vocation and a livelihood. | 3.23371* | .0279 |
| 47. | To offer a variety of employment training opportunities so students may find employment upon high school completion. | .87983 | .5409 |

TABLE IV (CONTINUED)

| | Statement | F | Level of Significance P |
|---|---|---|---|
| 48. | To provide the opportunity through youth organizations for students to develop the leadership potential and to become dedicated citizens. | 1.38061 | .2564 |
| 49. | To help students develop the initiative and dependability to hold down a job. | 2.96652* | .0382 |
| 50. | To provide a broader scope of training in job skills not already offered by the public schools because of the financial burden on individual districts. | 1.52138 | .2169 |
| 51. | To provide programs to retrain adults for better jobs or new jobs as they are created. | 3.82426* | .0141 |
| 52. | To provide high school dropouts and the unemployed the opportunity to develop basic skills in order to become gainfully employed. | 3.94841* | .0123 |
| 53. | To make education pertinent to potential dropouts and offer opportunities to these individuals that will encourage them to stay in school through twelve grades. | 2.97937* | .0377 |
| 54. | To provide a student the opportunity to explore occupational possibilities. | 1.10439 | .3548 |
| 55. | To provide skill training for the personnel needs of business and industry in the state and surrounding states. | .47686 | .7036 |
| 56. | To strengthen the state's and community's ability to attract industry by increasing the available manpower. | 2.25316 | .0901 |

TABLE IV (CONTINUED)

| | Statement | F | Level of Significance P |
|---|---|---|---|
| 57. | To provide students occupational classroom instruction and on-the-job training while in school. | 1.33930 | .2692 |
| 58. | To furnish job skills and motivating alternatives to those persons who don't desire or who are unable financially to attend college. | 1.27838 | .2893 |
| 59. | To dignify, upgrade, and improve student and community attitudes toward the work ethic and non-executive occupations. | 1.12434 | .3466 |
| 60. | To give students information as to the types of job skills, the types of jobs available, and the types of training available to them. | .45869 | .7161 |
| 61. | To provide skill training for students after the completion of high school. | 2.32976 | .0822 |
| 62. | To assist students in learning those skills for which they have an interest. | 1.57163 | .2043 |
| 63. | To provide physical therapy and human rehabilitation services for students. | .66895 | .5779 |
| 64. | To provide training in the areas of dentistry, optometry, and laboratory and X-ray technicians. | .12588 | .9437 |
| 65. | To provide training in interior and decorative structural design. | .76125 | .5231 |

*Values that were significant at the .05 level.

Test was applied to the data where a significant difference was found as a result of the analysis of variance test. The results of the Duncan's Multiple Range Test are presented in Table V.

It should be noted that only school board members, teachers, administrators, and counselors were used for the analysis of variance tests due to such a small number of respondents from the parent and student groups.

A significant difference at the .05 level among the groups was found for twelve of the sixty-five statements. The statements were as follows and accompanying each statement is a brief discussion as to where the difference was significant.

1. "To provide technical training for unskilled workers."

The school board members and counselors rated this more important than did the other groups. Teachers saw it as the least important of the groups and the group mean ranked it as thirty-second. School board members and counselors ranked it as second. Administrators ranked it twentieth.

16. "To provide enrichment courses needed for a well-rounded education and skills that might be used creatively for leisure."

Administrators rated this more important than did the other groups. School board members rated it as least important compared to the other groups.

21. "To give a student a skill which he may use much later in life such as a second occupation (perhaps after retirement)."

Of the four groups statistically tested, teachers, counselors, and administrators rated this item significantly higher than did school board members.

TABLE V

THE RESULTS OF DUNCAN'S MULTIPLE RANGE TEST FOR THE LOCATION OF VARIANCE AMONG THE GROUPS ON THEIR MEAN RATINGS OF INDIVIDUAL STATEMENTS WHERE A SIGNIFICANT DIFFERENCE WAS FOUND AT THE .05 LEVEL

| | Statement | Group vs. Group | Group Rating Most Important |
|---|---|---|---|
| 1. | To provide technical training for unskilled workers. | School Board Members vs. Teachers | School Board Members |
| | | Counselors vs. teachers | Counselors |
| 16. | To provide enrichment courses needed for a well-rounded education and skills that might be used creatively for leisure. | School Board Members vs. Administrators | Administrators |
| | | Administrators vs. Counselors | Administrators |
| 21. | To give a student a skill which he may use much later in life such as a second occupation (perhaps after retirement). | School Board Members vs. Teachers | Teachers |
| | | School Board Members vs. Counselors | Counselors |
| | | School Board Members vs. Administrators | Administrators |
| 27. | To help people feel self-sufficient, self-competent, and pride in their abilities so they may become better employees. | School Board Members vs. Counselors | Counselors |
| | | School Board Members vs. Administrators | Administrators |
| 39. | To provide experiences which will promote desirable characteristics, good work habits, personal pride, and satisfaction in doing a good job. | School Board Members vs. Counselors | Counselors |
| | | School Board Members vs. Administrators | Administrators |

TABLE V (CONTINUED)

| | Statement | Group vs. Group | Group Rating Most Important |
|---|---|---|---|
| 40. | To provide a sense of worth and achievement to the less capable individual. | School Board Members vs. Counselors | Counselors |
| | | School Board Members vs. Administrators | Administrators |
| | | Administrators vs. Teachers | Administrators |
| | | Counselors vs. Teachers | Counselors |
| 41. | To work harder at changing the attitudes of the general public, especially administrators, teachers, students, and parents, about vocational-technical education so a more balanced quality of students will attend vocational-technical training. | School Board Members vs. Teachers | School Board Members |
| | | Administrators vs. Counselors | Counselors |
| | | Counselors vs. Teachers | Counselors |
| 46. | To stress the honor and importance of technical skills in preparing for a vocation and a livelihood. | School Board Members vs. Counselors | Counselors |
| | | School Board Members vs. Administrators | Administrators |
| | | Counselors vs. Teachers | Counselors |
| 49. | To help students develop the initiative and dependability to hold down a job. | School Board Members vs. Counselors | Counselors |
| | | School Board Members vs. Administrators | Administrators |
| | | Administrators vs. Teachers | Administrators |
| | | Counselors vs. Teachers | Counselors |
| 51. | To provide programs to retrain adults for better or new jobs as they are created. | School Board Members vs. Teachers | School Board Members |
| | | Administrators vs. Teachers | Administrators |
| | | Counselors vs. Teachers | Counselors |

TABLE V (CONTINUED)

| | Statement | Group vs. Group | Group Rating Most Important |
|---|---|---|---|
| 52. | To provide high school dropouts and the unemployed the opportunity to develop basic skills in order to become gainfully employed. | School Board Members vs. Teachers | School Board Members |
| | | Administrators vs. Teachers | Administrators |
| | | Counselors vs. Teachers | Counselors |
| 53. | To make education pertinent to potential dropouts and offer opportunities to these individuals that will encourage them to stay in school through twelve grades. | School Board Members vs. Counselors | Counselors |
| | | School Board Members vs. Administrators | Administrators |
| | | Administrators vs. Teachers | Administrators |
| | | Counselors vs. Teachers | Counselors |

27. "To help people feel self-sufficient, self-competent and pride in their abilities so they may become better employees."

The difference here is a result of the counselors and administrators rating this statement significantly higher than the school board members who rated the item of relatively low importance. The teachers' rating appears to be about midrange among the groups.

39. "To provide experiences which will promote desirable personal characteristics, good work habits, personal pride, and satisfaction in doing a good job."

Of the four groups, counselors and administrators rated this item significantly higher than did the school board members. The other groups rated it somewhat the same which gave it an overall mean of 2.69 and an overall ranking of fourth. School board members rated it 3.85 which ranked it eighteenth in their group.

40. "To provide a sense of worth and achievement to the less capable individual."

There was a wide range among the groups' ratings of this statement. The counselors' and administrators' ratings differ significantly from the teachers' and school board members'. The counselors and administrators rated the statement 2.35 and 2.58 respectively where the teachers rated it 4.50 and the school board members, 4.23. The administrators and counselors rated providing a sense of worth and achievement to the less capable as being a more important role than did teachers and school board members. This statement has an overall ranking of ninth.

43. "To work harder at changing the attitudes of the general public, especially administrators, teachers, students, and parents, about vocational and technical education so a more balanced quality of students will attend vocational and technical training."

Counselors and school board members were the groups which rated this statement more important. Counselors rated this item as 2.80 where school board members, teachers, and administrators rated it 5.08, 5.67, and 4.42 respectively. The teachers felt this item to be of least importance of the four groups. Overall the statement ranked thirty-second.

46. "To stress the honor and importance of technical skills in preparing for a vocation and a livelihood."

The significant difference for this item was among the school board members and counselors (5.15 vs. 2.50), school board members and administrators (5.15 vs. 3.68), and teachers and counselors (4.75 vs. 3.68). The school board members and teachers see this item of least importance as compared to administrators' and counselors' ratings of high importance.

49. "To help students develop the initiative and dependability to hold down a job."

Table V reveals four differences among the groups' ratings. As with item 46, the administrators and counselors rated this statement significantly more important than did the school board members and teachers. The means ranged from 1.95 for administrators to 5.00 for school board members.

51. "To provide programs to retrain adults for better or new jobs."

Teachers felt this statement to be significantly less important than did the other three groups. The teachers' ranking for this time was 32 as compared to a range of 5.5 to 13.5 by the other groups. An interesting observation is that parents and students (even though they are not included in this analysis) appeared to agree with the teachers' rating.

52. "To provide high school dropouts and the unemployed the opportunity to develop basic skills in order to become gainfully employed."

This item received an overall mean rating of 3.930 and an overall ranking of thirty-first. A significant difference was found to exist among the school board members and teachers (3.46 vs. 4.67), administrators and teachers (2.80 vs. 4.67), and counselors and teachers (2.30 vs. 4.67). Teachers obviously did not feel that skill training for dropouts and the unemployed is as important as did the other three groups.

53. "To make education pertinent to potential dropouts and offer opportunities to these individuals that will encourage them to stay in school through twelve grades."

Counselors and administrators rated this item significantly higher than did school board members and teachers.

## Research Question Number Three

Is there any differences among participants grouped by planning districts as to their perceived roles of vocational and technical education?

To arrive at an answer for this question the data was grouped by planning districts and statistically treated in the same manner as for research question number two. Table VI reveals the results of the analysis of variance tests for each item, and indicates for which statements there were significant differences (at the .05 level) in mean ratings among planning districts. The Duncan's Multiple Range test was performed to determine the location of these differences, but the table of results for this test is not included in this text due to its extreme length. However, the differences will be discussed in the

TABLE VI

THE RESULTS OF THE ONE-WAY ANALYSIS OF VARIANCE AMONG THE MEAN RATINGS OF THE PARTICIPANTS BY PLANNING DISTRICTS

| Statement | F | Level of Significance P |
|---|---|---|
| 1. To provide technical training for unskilled workers. | 2.8376 | .2541 |
| 2. To provide training for those people who are especially adaptable to manual arts. | .56395 | .8382 |
| 3. To help students analyze and solve business and economic problems with reasonable judgment. | .90519 | .5336 |
| 4. To help individuals improve their home environment and the quality of personal and family life. | 1.50514 | .1554 |
| 5. To provide skill training in areas that would complement a college education. | 1.72731 | .0910 |
| 6. To assist students in learning those skills for which they have an aptitude. | .81339 | .6176 |
| 7. To provide information to students regarding financial aid available. | .76528 | .6624 |
| 8. To provide students with moral training for the business world and human relationships. | .57580 | .8289 |
| 9. To develop an awareness of responsibility as a member of the society and the legal aspects connected with these responsibilities. | .99519 | .5435 |
| 10. To provide basic homemaking and nutritional skills with utilitary purposes. | 1.35430 | .2191 |

TABLE VI (CONTINUED)

| Statement | F | Level of Significance P |
|---|---|---|
| 11. To provide students with education they can use in everyday life such as management of time, talents, money, and energy and how to work on a set time schedule. | 1.34603 | .2232 |
| 12. To offer opportunities to fourteen and fifteen year olds as helpers or aides in various occupations. | 1.22079 | .2924 |
| 13. To develop a realistic self understanding regarding decisions relative to career choice in a vocation that they enjoy rather than to be in a job just for the sake of a livelihood. | .85154 | .5823 |
| 14. To provide students the opportunity to learn how to run a self-employed business. | .23923 | .9905 |
| 15. To provide a background for understanding the need for continuing education and training in the various career areas. | 1.05894 | .4052 |
| 16. To provide enrichment courses needed for a well-rounded education and skills that might be used creatively for leisure time. | 1.73673 | .0889 |
| 17. To teach skills for locating, applying for, and interviewing for a job. | 1.05167 | .4109 |
| 18. To teach good work habits and the importance of jobs. | .93361 | .5086 |
| 19. To provide basic skill training and meet the needs of those with fewer abilities so they might become useful, productive wage earners. | 1.00211 | .4508 |

TABLE VI (CONTINUED)

| Statement | F | Level of Significance P |
|---|---|---|
| 20. To build attitudes which develop self-discipline in work, study and play. | .93196 | .5105 |
| 21. To give a student a skill which he may use much later in life such as a second occupation (perhaps after retirement). | 2.08615* | .0365 |
| 22. To be used as a catch-all to rid other classes of undesirable students. | 2.83532* | .0053 |
| 23. To provide present and future workers the training opportunity to broaden their skills and to increase earning powers. | 1.21364 | .2969 |
| 24. To provide job skills for students needing to earn their way through further schooling, such as college. | .79800 | .6319 |
| 25. To help break down the common school ideology and the practice of a common education for all. | 1.98730* | .0471 |
| 26. To reduce the welfare rolls by helping a person find his role in life. | .66034 | .7579 |
| 27. To help people feel self-sufficient, self-competent, and pride in their abilities so they may become better employees. | 1.27466 | .2608 |
| 28. To provide agriculture information and experience that will develop a knowledge of the science of agriculture and create and nurture a love of farm life. | 1.8562 | .3147 |
| 29. To provide extra training for partially trained people, particularly hospital personnel. | 1.22817 | .2879 |

TABLE VI (CONTINUED)

| | Statement | F | Level of Significance P |
|---|---|---|---|
| 30. | To be very strict about vocational-technical program requirements and qualifications for students and exercise caution in sending out graduates who cannot do the required work. | .75728 | .6698 |
| 31. | To work closely with business, labor, industry, and the community and involve them in the education of people. | .89226 | .5452 |
| 32. | To provide upgrading of an individual's skills for advancement in present job. | 1.51843 | .1506 |
| 33. | To further skills for those not satisfied with present occupations. | 1.24622 | .2805 |
| 34. | To improve the student's role in athletics for those interested in sports. | 1.76956 | .0835 |
| 35. | To offer training in the field of petroleum production. | .88683 | .5504 |
| 36. | To offer training in the operation and maintenance of commercial transportation carriers. | .62043 | .7919 |
| 37. | To offer training in photography, wildlife conservation, engineering, typing, and physical education. | .84254 | .5907 |
| 38. | To provide a better understanding of labor and management. | .69937 | .7228 |
| 39. | To provide experiences which will promote desirable personal characteristics, good work habits, personal pride, and satisfaction in doing a good job. | .67504 | .7446 |

TABLE VI (CONTINUED)

| Statement | F | Level of Significance P |
|---|---|---|
| 40. To provide a sense of worth and achievement to the less capable individual. | 1.64306 | .1136 |
| 41. To provide a program whereby mentally handicapped students can be taught to become self-sufficient and improve their self image. | .77172 | .6563 |
| 42. To provide general education in the disciplines (English, social studies, and math) that will be needed in the technical and occupational fields. | 1.97400 | .0501 |
| 43. To work harder at changing the attitudes of the general public, especially administrators, teachers, students, and parents, about vocational-technical education so a more balanced quality of students will attend vocational-technical training. | .78310 | .6458 |
| 44. To offer each high school student a larger area of choice in curriculums. | 1.01819 | .4385 |
| 45. To serve as an integrative factor between technical and academic classes to help make the study of English and math relevant. | 1.36390 | .2162 |
| 46. To stress the honor and importance of technical skills in preparing for a vocation and a livelihood. | .43354 | .9248 |
| 47. To offer a variety of employment training opportunities so students may find employment upon high school completion. | 1.00922 | .4458 |

TABLE VI (CONTINUED)

| Statement | F | Level of Significance P |
|---|---|---|
| 48. To provide the opportunity through youth organizations for students to develop the leadership potential and to become dedicated citizens. | .99336 | .5412 |
| 49. To help students develop the initiative and dependability to hold down a job. | .59313 | .8145 |
| 50. To provide a broader scope of training in job skills not already offered by the public schools because of the financial burden on individual districts. | .53973 | .8560 |
| 51. To provide programs to retrain adults for better jobs or new jobs as they are created. | .40667 | .9387 |
| 52. To provide high school dropouts and the unemployed the opportunity to develop basic skills in order to become gainfully employed. | .51043 | .8770 |
| 53. To make education pertinent to potential dropouts and offer opportunities to these individuals that will encourage them to stay in school through twelve grades. | .86905 | .5665 |
| 54. To provide a student the opportunity to explore occupational possibilities. | .76771 | .6600 |
| 55. To provide skill training for the personnel needs of business and industry in the state and surrounding states. | 1.52202 | .1512 |
| 56. To strengthen the state's and community's ability to attract industry by increasing the available manpower. | .71334 | .7101 |

TABLE VI (CONTINUED)

| Statement | F | Level of Significance P |
|---|---|---|
| 57. To provide students occupational classroom instruction and on-the-job training while in school. | .75141 | .6751 |
| 58. To furnish job skills and motivating alternatives to those persons who don't desire or who are unable financially to attend college. | 1.40699 | .1965 |
| 59. To dignify, upgrade, and improve student and community attitudes toward the work ethic and non-executive occupations. | .65392 | .7632 |
| 60. To give students information as to the types of job skills, the types of jobs available, and the types of training available to them. | .49963 | .8844 |
| 61. To provide skill training for students after the completion of high school. | 1.59653 | .1269 |
| 62. To assist students in learning those skills for which they have an interest. | 1.03632 | .4240 |
| 63. To provide physical therapy and human rehabilitation services for students. | .90276 | .5362 |
| 64. To provide training in the areas of dentistry, optometry, and laboratory and X-ray technicians. | .44240 | .9199 |
| 65. To provide training in interior and decorative structural design. | .70302 | .7195 |

*Values that were significant at the .05 level.

narrative pertaining to each of the three statements where a significant "F" value was obtained.

21. "To give a student a skill which he may use much later in life such as a second occupation."

This statement can be recognized as a non-significant role of vocational and technical education. There were some differences in the response ratings by planning districts. These differences were found to exist among planning districts five, East Central, and eleven, Northwest, which rated the statement 3.00 and 4.25 respectively. The gross difference was between these two groups and district six, Tulsa SMSA, which rated it 8.57 and district three, Southeast, which rated the item 7.29. The remaining districts rated this statement in the range of 5.83 and 8.57.

22. "To be used as a catch-all to rid other classes of undesirable students."

This statement was rated as least important by all of the six groups. However, the analysis of variance test by planning districts revealed that districts four, South Central, and eleven, Northwest, rated this statement significantly different, more important, from the means of the other groups, 5.9 and 6.5 respectively. The vast difference occurred among these districts and district six, Tulsa SMSA, district seven, North Central, and district eight, Oklahoma City SMSA, which had ratings of 11.00, 11.00 and 10.10 respectively. The other districts rated this item between 9.29 and 11.00.

25. "To help break down the common school ideology and the practice of a common education for all."

The results of the Duncan's Multiple Range Test indicates that the significant differences lie among district three, Southeast, and

district four, South Central, which gave ratings higher in importance than the other districts.

As compendium to these findings, it should be pointed out that the planning districts as a whole appear to be homogeneous in their perceptions as to the roles of vocational and technical education. The significant differences found were not among similar or pertinent statements. Quite conversely, in the researcher's opinion, the differences existed among statements of little importance as to the role of vocational and technical education. The only obvious consistency with regard to ratings was districts eleven and six which rated the statements significantly different in two of the cases.

## Summary

This chapter presented the data and the analysis of the data. It was found that the statements which were concerned with skill training and work values generally received a higher ranking of importance than did the remainder of the Delphi statements in other categories. The statements regarding specific curriculums received the lowest overall ratings. The statements in which meaning was not manifest fell in the middle two quartiles.

The statistical tests revealed that for twelve of the sixty-five statements a significant difference did exist among the groups' ratings of the statements. The immense differences were present among the administrators' and counselors' mean ratings versus the school board members' and teachers'. Regretably there were insufficient parents and students responding to correspondence sheets one and two to include their input in the statistical analysis of the data.

Concerning the question of whether or not there was a significant difference among the participants' responses of the different planning districts, it was found that only three statements were rated significantly different. These statements did not contain any significant postulates relating to the role of vocational and technical education.

# CHAPTER V

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### Summary

The purpose of this study was, first, to determine the roles of vocational and technical education as perceived by parents, teachers, school board members, school administrators, school counselors, and students; and second, to determine if there was any difference among the groups' ratings as to these perceived roles. The Delphi Technique was utilized to solicit the various perceptions of the selected participants and to acquire their ratings of perceived importance of these statements. To fulfill this purpose the following three research questions were formulated and acknowledged.

Research Question Number One was: "What are the groups' rankings of the statements of perceived roles of vocational and technical education?" The statements which were concerned with skill training and work values generally received a higher ranking of importance than did the remainder of the statements. The statements involving specific curriculums received the lowest overall rankings. The statements in which meaning was not as manifest fell in the middle two quartiles.

The first quartile appears to reflect the already assumed purpose of vocational and technical education as found in the review of literature. Vocational and technical education has been established by social and cultural influences evolving from an industrial society with a

complex value domain concerning the necessity of work. The underlying purpose for vocational and technical education which emerges is occupational training in preparation for entry into jobs requiring less than a baccalaureate degree. It is noted that an element of awareness is presented by the participants' concerns over (1) status of different occupations, (2) training of the less-advantaged, and (3) career decision making skills. There was a tendency (perhaps it is a perceptual bias of this researcher) for the participants to indicate that vocational and technical education is for those of a "lower origin" than themselves.

It should also be mentioned that from examining the statements in respect to the students' rankings that the students did not appear to view vocational and technical education as a means to a livelihood for themselves or that work values were an important role. Yet, that is merely a perception of the researcher based upon the cognitive assimilation of the data. However, in examining similar items, it can be seen that the students' responses are not consistent.

Research Question Number Two asks: "Is there any difference among the groups as to their perceived roles of vocational and technical education? The tests revealed that for twelve of the sixty-five statements, or approximately twenty percent, a significant difference did exist among the groups' ratings of the statements. The immense

differences were present among the administrators' and counselors' mean ratings versus the school board members' and teachers'. There were insufficient parents and students who responded to correspondence sheet two to include them in the statistical analysis of the data concerning this question.

Several results of the analysis should be mentioned concerning the differences among the groups' ratings. First, administrators seem to perceive vocational and technical education as a way to round out the total educational institution and provide education for all individuals, especially the less-advantaged. They do not necessarily feel that occupational education, cognitive and psychomotor instruction, is any more of an important role of vocational and technical education than value disciplining or affective instruction. Second, counselors' perceptions of the role of vocational and technical education appear to be scattered. They feel strongly about certain skill training for special groups and have contrasting feeling about similar statements concerning occupational education. Their responses form an up and down type pattern on similar statements where they might be expected to be consistent. Third, teachers generally did not deviate from the mean too much. In very few instances did they fall out side the middle of the means range. However, the statements which they did rate significantly different were in the areas of skill training and they did not see it as an important role as did the other groups. Their absence of differences makes their middle of the range responses conspicuous and suspect of lacking strong opinion concerning vocational and technical education. Fourth, school board members did differ from the other groups in their ratings on numerous statements. They appear to be more oriented

toward the real world of work and perceive the roles of vocational and technical education as being a link between school and work in providing training to students for jobs and real work values.

Research Question Number Three inquired: "Is there any difference among the participants grouped by planning districts as to their perceived roles of vocational and technical education?" There were only three statements which involved any significant difference among the responses by planning districts. These statements did not contain any significant postulates relating to the roles of vocational and technical education. The differences that were significant lie between those districts where vocational and technical education was sparse and the remaining districts.

## Conclusions

1. Based on the data analyzed for Research Question Number One, the conclusion might be reached that the statements mentioning work values, training and skill training were ranked most important by the groups. The researcher concludes the groups did associate vocational and technical education with the teaching of occupational skills and work values.
2. The data analyzed for Research Question Number Two indicates a difference in how school board members, teachers, counselors, and administrators perceive the roles of vocational and technical education. The conclusion appears to be very just when considering the perceptual bases from which these groups draw their opinions.

3. The participants' perceptions of the roles of vocational and technical education are not aligned with those of professional vocational and technical education or the state and federal mandates. Even though this study did not purport to compare or necessarily evaluate the participants' perceptions with the established roles of vocational and technical education, this observation cannot be divorced from the findings of the study.
4. The paramount overall role of vocational and technical education, statement 62, focused on assisting students in learning those skills for which they have an interest. The second most important role, statement 18, concerned teaching good work habits and the importance of jobs; and the third, statement 58, dealt with furnishing job skills and motivating alternatives to those persons who do not desire or who are unable financially to attend college.
5. Another conclusion based on the results of Research Question Number Two is that administrators perceive the role of vocational and technical education is to balance out the total educational scheme to fill in the voids. Counselors were inconsistent in their perceptions as to the roles of vocational and technical education. Teachers are equidistant in their ratings as to their perceptions of vocational and technical education when compared to the other groups. School board members perceive vocational and technical education's roles in a more realistic light as being an orientation and preparation towards the world of work.

6. The sample of parents and students, even though too small to statistically test against the other groups, did rate the statements generally different from the other groups. Their ratings of importance appear to be in the areas of expanded offerings of curriculums and specific curriculums. Perhaps their responses imply that vocational and technical education is for someone else and not them. It should be noted that this is the researchers' opinion.
7. School board members ranked the statements concerning occupational training and work values as being more important than did the other groups.
8. Counselors were consistent in their ratings of career choice type statements as having high importance. They also perceived occupational training as being an important role of vocational and technical education.
9. Teachers rated the statements regarding on-the-job training and opportunities to explore occupational possibilities as important roles of vocational and technical education. Other statements they perceived as important concerned general attitudes, career decisions, and work attitudes.
10. Administrators tend to perceive vocational and technical education as a segment of the total educational process. They rated statements important which conveyed the thought that vocational and technical education is mainly for groups who desire or need less than a college degree so they may be productive. They also felt that the roles of vocational and technical education should be parallel to those of general education in social and cultural training.

11. Based on the data analyzed for Research Question Number Three it appears that there are no truly significant differences among the participants across the state as to their perceptions of the role of vocational and technical education. The differences that did arise were trival and possibly the result of the districts ratings in areas where vocational and technical education is concentrated or the areas where it is sparse or non-existent.
12. The statements returned on correspondence sheet number one that were outside the parameters of the study were ranked among the lowest in importance in response to correspondence sheet number two.

## Recommendations

1. The findings and conclusions of this study should be distributed to planners, decision makers, teacher educators, and public relations personnel for vocational and technical education.
2. A parallel study should be done with the same opinionnaire as generated by this study and asking expert vocational and technical educators to respond. The two data sets should then be compared to determine exactly where the perceptual incongruencies exist.
3. There should be an attempt to better educate parents, teachers, school board members, counselors, administrators, and students as to the roles of vocational and technical education as outlined by the state and federal mandates.

4. If another study other than the one recommended above is conducted, it is suggested that the opinionnaire be revised and validated in order to eliminate redundancy.
5. It is recommended that an attempt be made to gather a more representative sample of the parents and students perceived roles of vocational and technical education using the opinionnaire generated by this study but with a different randomly selected sample.
6. Based on the return rates for the parents and students it is the judgment of this researcher that a different strategy for the mail-outs used in this Delphi Technique would be better to gather opinions from these types of groups. The limited responses for both round one and two of these groups were valid and very usable, but an increased return rate would have been more desirable.

## Implications

The results of the participants' stated perceptions of the roles of vocational and technical education indicate that they do not clearly understand the true roles of vocational and technical education. Each responding group looks at vocational and technical education from a slightly different point of view. The results also are enlightening in regarding the fact that most areas of education are looked upon from a general education philosophy. These ideologies became quite interwoven into the bases upon which perceptions as to the role of vocational and technical education are formulated. The participants apparently had a limited exposure to vocational and technical education

because they did not appear to have a firm grasp as to the concept. The wide variety of statements obtained from correspondence sheet one is speculated to be the result of the heterogeneous groups participating. Delphi studies are more accurate in reflecting conforming opinions for homogeneous groups.

After reviewing the results of this study, it is the researcher's opinion that the people directly involved in education at the secondary level do not understand vocational and technical education's goals, roles, and objectives. They still maintain the old stereotype views of it as being schooling for the individual of a "lesser origin," that a college degree is the ultimate goal, and that those who cannot achieve the ultimate goal should settle for second best, "vocational and technical education."

SELECTED BIBLIOGRAPHY

(1) Division of Vocational and Technical Education, Department of Health, Education, and Welfare. Trends in Vocational Education. Washington: U.S. Government Printing Office, 1972.

(2) Lee, M. Arthur. Learning a Living Across the Nation. Flagstaff, Arizona: Northern Arizona University, 1972, 130.

(3) Mays, A. B. Principles and Practices of Vocational Education. New York: McGraw-Hill, 1948.

(4) Butts, R. F. A Cultural History of Western Education. New York: McGraw-Hill, 1955, 164-172.

(5) Bailey, Larry J. and Ronald Stadt. Career Education: New Approaches to Human Development. Bloomington, Illinois: McKnight, 1973, 171-172.

(6) Curti, Merle. Social Ideas of American Educators: Report of the American Historical Association Commission on the Social Studies. Part 10. New York: The Association, 1935.

(7) Cremin, Lawrence A. The Transformation of the School. New York: Alfred A. Knopf, 1961, 14-20.

(8) Bennet, C. A. History of Manual and Industrial Education to 1870. Peoria: Charles A. Bennett, 1926.

(9) Venn, Grant. Man, Education and Manpower. Washington: American Association of School Administrators, 1970, 153-154.

(10) Freed, Robert. "The Development of Post-High School Technical-Vocational Education in Oklahoma." (Unpub. masters thesis, Oklahoma State University, 1968), 62.

(11) Lombardi, David. "Historical Development of the Electronics Technology Curriculum at Oklahoma State University Technical Institute." (Unpub. masters thesis, Oklahoma State University, 1967), 39.

(12) U.S. Department of Health, Education, and Welfare, Office of Education. Education for a Changing World of Work. Washington: U.S. Government Printing Office, 1963.

(13) Evans, Rupert. Foundations of Vocational Education. Columbus: Merrill, 1971, 145-160.

(14) Tilgher, A. "Work Through the Ages." Man, Work and Society: A Reader in the Sociology of Occupations. In Nosow, Sigmund, and Forme, Eds. New York: Basic Books, 1962.

(15) Whitehead, Alfred North. The Aims of Education and Other Essays. New York: New American Library, 1949, 20.

(16) Reuther, Walter P. "The Human Goals of Manpower Policy." Manpower Tomorrow. Irving H. Siegal, Ed. New York: August N. Nelly, Publishers, 1967, 31.

(17) Conant, James. Slums and Suburbs. New York: Signet Books, 1961, 38-43.

(18) Report of the White House Conference on Youth. Washington: U.S. Government Printing Office, 1971.

(19) Hopkins, Charles O., Kenneth L. Ritter, and William W. Stevenson. Delphi: A Planning Tool. Stillwater: Oklahoma State Department of Vocational and Technical Education, 1972.

(20) Plan for Progress Through the 70's. Stillwater: Oklahoma State Department of Vocational and Technical Education, 1972.

(21) Shultz, Fred A. and H. Robert Terry. Selected Aspects of Vocational Image as Perceived by Publics Categorized by Occupational Levels. Stillwater: Oklahoma State Department of Vocational and Technical Education, 1973, 18-19.

(22) Oklahoma Annual Descriptive Report. Stillwater: Oklahoma State Department of Vocational and Technical Education, 1973, 12-13.

(23) A Guide to Oklahoma Vocational and Technical Education. Stillwater: Oklahoma State Department of Vocational and Technical Education, 1974.

(24) Sherif, Helen, Nazafer Sherif and Roger E. Nebergall. Attitude and Attitude Change. Philadelphia: W. B. Saunders Company, 1965, 91-99.

(25) Sherif, M. and C. I. Van Hovlin. "Judgemental Pheonominal and Scales of Attitude Measurement: Place of Items With Individual Choice and Number Categories." J. Avnorn. Soc. Psycholol., 48 (July, 1969), 135-141.

(26) Edwards, A. L. "A Critique of 'Neutral Items' in Attitude Scales Constructed by the Method of Equal-Appearing Intervals." Psychol. Review, 53 (March, 1972), 159-169.

(27) Zimbardo, P. G. "Vocal Ambiguity and Judgemental Distortion." Psychology Report, 6 (January, 1960), 57-58.

(28) Johnson, D. M. "A Systematic Statement of Judgement." Psychological Bulletin, 42 (August, 1945, 193-224.

(29) Brenner, J. S. "Sociological Psychological and Perception." Readings in Social Psychology. E. Macoby, T. Newcomb, and E. Hartley, Eds. New York: 1968.

(30) Cantril, H. "Perception and the Interpersonal Relationship." American Journal of Psychiatry, 114 (June, 1957), 119-126.

(31) Haire, M. and W. F. Grunes. "Perceptional Defenses: Product Protecting and Original Perception of Another Personality." Human Relations, 3 (April, 1958), 403-413.

(32) Brown, Bernice B. "Delphi Process, A Method Used for the Elicitation of Opinion of Experts." ASTME Vectors, 3 (January, 1968), 60-64.

(33) Dalkey, Norman C. Predicting the Future. Santa Monica, California: The Rand Corporation, 1968, 22.

(34) Knol, Ronald. "What Good Is Technological Forecasting." Management Review, 62 (March, 1973), 27-28.

(35) An Experimental Study of Group Opinion. Santa Monica, California: The Rand Corporation, 1969.

(36) Dalkey, Norman C. Experiments in Group Prediction. Santa Monica, California: The Rand Corporation, 1968, 65.

(37) Weaver, Timothy W. "The Delphi Forecasting Method." Phi Delta Kappan, 52 (January, 1971), 22-25.

(38) Cyphert, Fredrick R. and Walter L. Gant. "The Delphi Technique: A Case Study." Phi Delta Kappan, 52 (January, 1971) 30-33.

(39) Dayton, Mitchell C. The Design of Educational Experiments. New York: McGraw Hill, 1970.

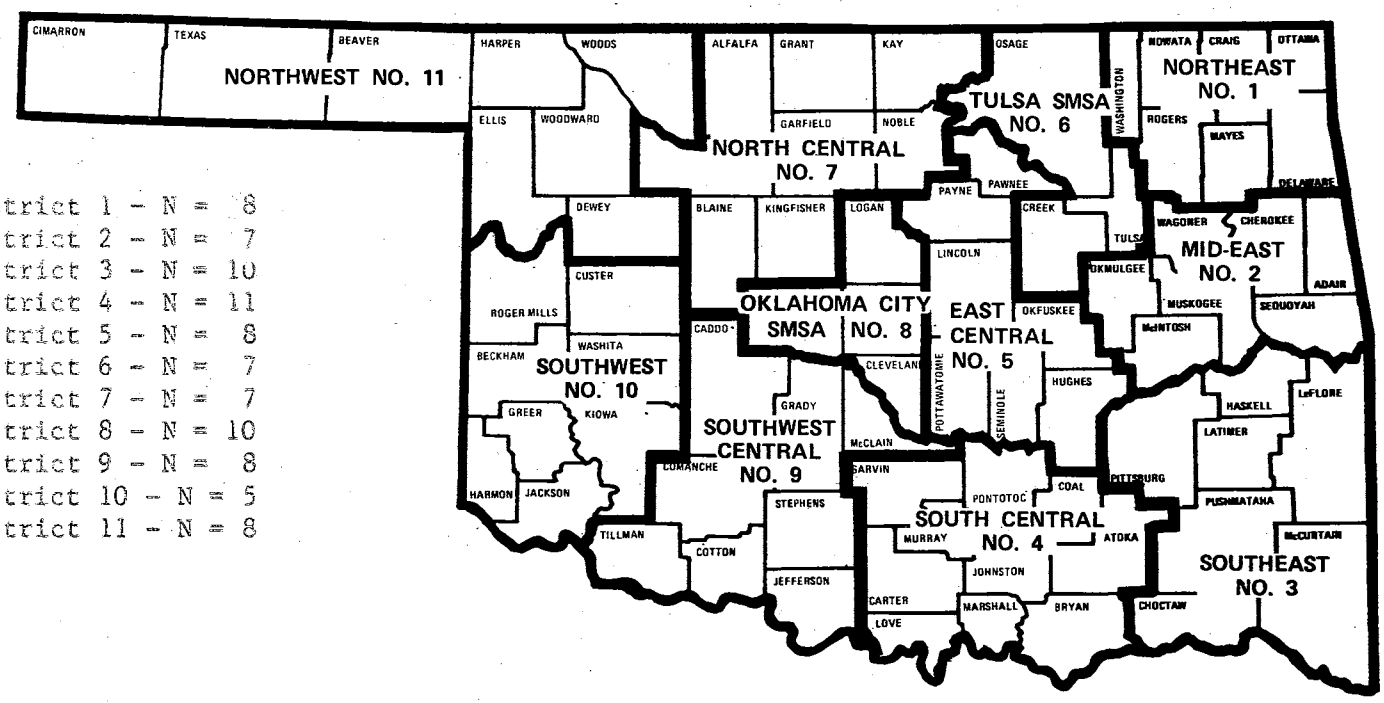
(40) Popham, James W. Educational Statistics. New York: Harper and Row, 1967, 169-180.

(41) Kerlinger, Fred N. Foundations of Behavioral Research. New York: Holt, Rinehart and Winston, 1964, 213-215.

(42) Brunig, Janis L. and B. L. Kintz. Computational Handbook of Statistics. Glenview, Illinois: Scott and Foresman, 1968, 115-117.

# APPENDIX A

District 1 - N = 8
District 2 - N = 7
District 3 - N = 10
District 4 - N = 11
District 5 - N = 8
District 6 - N = 7
District 7 - N = 7
District 8 - N = 10
District 9 - N = 8
District 10 - N = 5
District 11 - N = 8




OKLAHOMA'S ELEVEN PLANNING DISTRICTS

# APPENDIX B

Votech
OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION
FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

In cooperation with the Oklahoma State Department of Vocational and Technical Education, I am currently conducting a research study. The purpose is to determine people's perception as to the role of vocational-technical education in Oklahoma today. We are surveying 55 people in each of the following six groups: school board members, school administrators, school counselors, school teachers, high school students, and parents of high school students.

You have been selected to represent one of these groups and we would like to invite your participation. Your input is valuable and will be of great benefit to this study and to vocational-technical education. We are asking for only eight to ten minutes of your time in order to get an expression of your feelings.

The Delphi technique has been chosen as the method to be used in obtaining your perceptions as to the role of vocational-technical education. This technique, which builds on informed, sound judgment, obtains opinions from and allows interaction among persons without bringing them together. This study will require three mailings spaced approximately four weeks apart as follows:

| | |
|---|---|
| Correspondence No. 1 | Requests that you list five statements or areas that you feel are roles of vocational-technical education in Oklahoma. |
| Correspondence No. 2 | A list of statements will be compiled from the participants' responses to Correspondence No. 1 and mailed back to you. Each person will be asked to rate the importance of each item as a role of vocational-technical education. |
| Correspondence No. 3 | The average rankings of each item by the participants will be compiled from responses to correspondence #2. A second list, ranking items in order of importance, will be sent to you as correspondence #3. You will be asked to make changes in the order of the list together with reasons for making the changes, or to agree with the order as listed. |

From the response obtained in Step 3, a final priority list of roles for vocational-technical education will be incorporated into the total information process for Oklahoma's State Department of Vocational and Technical Education.

We hope you will agree to participate with us in this effort of obtaining valuable information needed for decision making to provide a well-rounded education to all of Oklahoma's citizens. If you are willing to assist us, please complete the attached instrument and return it in the enclosed self-addressed, stamped envelope. Thank you very much for your assistance.

Sincerely,

Rick Brooks

Rick Brooks
Graduate Research Assistant

Enclosure

RB/XCU-01/13

THE PERCEIVED ROLES OF VOCATIONAL-TECHNICAL EDUCATION STUDY

State Department of Vocational and Technical Education

Stillwater, Oklahoma

Correspondence Sheet No. 1

(Please return immediately in enclosed envelope, time is essential for the proper coordination of this study.)

Please list up to five statements or areas that you feel describe the role of Vocational-Technical Education in Oklahoma today.

EXAMPLE: A possible statement might be "To offer opportunities to explore a variety of occupational possibilities."

OR

"To provide skill training for the needs of business and industry in the state."

List your statements below.

No. 1

No. 2

No. 3

No. 4

No. 5

Votech
OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION
FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

In cooperation with the Oklahoma State Department of Vocational and Technical Education, I am currently conducting a research study. The purpose is to determine the people's perception as to the role of vocational-technical education in Oklahoma today. We are surveying 55 people in each of the following six groups: school board members, school administrators, school counselors, school teachers, high school students, and parents of high school students.

Here is where you come in. Your help is needed in selecting students for our samples. We would like for you to return to us the name and home mailing address of one student selected as specified below.

Please use your grade book and:

1. Use the third roster,
2. Select the 8th name,
3. If you don't have a third roster, use the last one and select the 8th name.

Please write that name on the bottom of this letter and return it in the enclosed postage paid envelope. Thank you, we appreciate your time and efforts in helping us conduct this study.

Sincerely,

Rick Brooks

P.S. All information will be grouped so that confidentiality will be maintained.

Student's Name and Home Mailing Address

Name _____

Address _____

_____

_____

Enclosure

Votech OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION
FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

April 26, 1974

MEMORANDUM

TO: Teachers Who Were Asked to Select Students for Research Sample

FROM: Rick Brooks, Graduate Research Assistant, Research, Planning, and Evaluation

SUBJECT: Letter Soliciting Names of Students for Research Project

A short time ago (April 17), we mailed to you a letter asking for your help in obtaining names of students for a research project which we are conducting. This memorandum is to remind you that this information is very valuable to us and is almost impossible to get without your help.

Your participation will be greatly appreciated. If you have not already done so, please fill out the enclosed form and return it immediately in the enclosed envelope.

This information is needed before the remainder of the project can proceed. Thank you for your cooperation.

RB/XDB-02/17

Votech OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION
FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

May 24, 1974

MEMORANDUM

TO: DELPHI Participants

FROM: Rick Brooks, Graduate Research Assistant

SUBJECT: DELPHI Correspondence Number Two

A short time ago we mailed you correspondence sheet number two for your rating of the roles of vocational-technical education (DELPHI technique). This memorandum is to remind you that this information is very valuable to us and your participation is important. If you have not already done so, please fill out the enclosed correspondence sheet and return it immediately. This information is needed in order for us to continue the study.

RB/XET-01/10

# APPENDIX C

OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION
FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

Thank you for completing correspondence questionnaire #1. Your response was excellent and we appreciate the statements you furnished. We hope you will continue your assistance by completing correspondence sheet #2, which is attached.

It contains the major concepts that were identified from your suggestions in response to the first questionnaire (correspondence sheet #1). As anticipated, we came up with a number of important statements concerning the group's perceived role of vocational and technical education in the state of Oklahoma. In order that we can determine the most important factors, we are asking you to rate them on an eleven point continuum scale.

The statements will be analyzed according to the way you rate them, and from these rankings, we hope to gain some insight as to which roles the group feels are most important and least important. These statements will be ranked from your ratings in the order of most importance to least importance. Therefore, consider carefully all statements and give each one some thought as to how you feel about their importance to you.

Please complete the attached questionnaire and enclose it in the self-addressed, postage-paid, return envelope as soon as possible. Again, let me thank you for giving us your time and attention. Your response is greatly appreciated and is important to the completion of this research study.

Sincerely,

Rick Brooks, Graduate Assistant
Division of Research, Planning,
and Evaluation

Enclosures

RB/XCD-01/10

CORRESPONDENCE SHEET NO. 2
(To be returned in postage paid envelope)

Below are the statements (from Correspondence Sheet No. 1) that you and others listed as your perceptions of the role of Vocational and Technical Education in Oklahoma. In order to establish a priority on the most important roles, we would like to ask you to rate each statement on an 11-point continuum ranging from (1) which is most important, to (11) which is least important.

Please be selective in choosing the rating of each of the statements. We carefully combined all statements that were similar. If your statements are not adequately expressed by those below, please write them in on the last page.

EXAMPLE

"To offer opportunities to explore a variety of occupational possibilities."

(Please mark with an "X")

| | | Most Important — Least Important |
|---|---|---|
| | | 1 2 3 4 X 6 7 8 9 10 11 |
| 1. | To provide technical training for unskilled workers. | 1 2 3 4 5 6 7 8 9 10 11 |
| 2. | To provide training for those people who are especially adaptable to manual arts. | 1 2 3 4 5 6 7 8 9 10 11 |
| 3. | To help students analyze and solve business and economic problems with reasonable judgment. | 1 2 3 4 5 6 7 8 9 10 11 |
| 4. | To help individuals improve their home environment and the quality of personal and family life. | 1 2 3 4 5 6 7 8 9 10 11 |
| 5. | To provide skill training in areas that would complement a college education. | 1 2 3 4 5 6 7 8 9 10 11 |
| 6. | To assist students in learning those skills for which they have an aptitude. | 1 2 3 4 5 6 7 8 9 10 11 |
| 7. | To provide information to students regarding financial aid available. | 1 2 3 4 5 6 7 8 9 10 11 |
| 8. | To provide students with moral training for the business world and human relationships. | 1 2 3 4 5 6 7 8 9 10 11 |
| 9. | To develop an awareness of responsibility as a member of the society and the legal aspects connected with these responsibilities. | 1 2 3 4 5 6 7 8 9 10 11 |
| 10. | To provide basic homemaking and nutritional skills with utilitary purposes. | 1 2 3 4 5 6 7 8 9 10 11 |

continued on back

| | | Most Important — Least Important |
|---|---|---|
| 11. | To provide students with education they can use in everyday life such as management of time, talents, money, and energy and how to work on a set time schedule. | 1 2 3 4 5 6 7 8 9 10 11 |
| 12. | To offer opportunities to fourteen and fifteen year olds as helpers or aides in various occupations. | 1 2 3 4 5 6 7 8 9 10 11 |
| 13. | To develop a realistic self understanding regarding decisions relative to career choice in a vocation that they enjoy rather than to be in a job just for the sake of a livelihood. | 1 2 3 4 5 6 7 8 9 10 11 |
| 14. | To provide students the opportunity to learn how to run a self-employed business. | 1 2 3 4 5 6 7 8 9 10 11 |
| 15. | To provide a background for understanding the need for continuing education and training in the various career areas. | 1 2 3 4 5 6 7 8 9 10 11 |
| 16. | To provide enrichment courses needed for a well-rounded education and skills that might be used creatively for leisure time. | 1 2 3 4 5 6 7 8 9 10 11 |
| 17. | To teach skills for locating, applying for, and interviewing for a job. | 1 2 3 4 5 6 7 8 9 10 11 |
| 18. | To teach good work habits and the importance of jobs. | 1 2 3 4 5 6 7 8 9 10 11 |
| 19. | To provide basic skill training and meet the needs of those with fewer abilities so they might become useful, productive wage earners. | 1 2 3 4 5 6 7 8 9 10 11 |
| 20. | To build attitudes which develop self-discipline in work, study, and play. | 1 2 3 4 5 6 7 8 9 10 11 |
| 21. | To give a student a skill which he may use much later in life such as a second occupation (perhaps after retirement). | 1 2 3 4 5 6 7 8 9 10 11 |
| 22. | To be used as a catch-all to rid other classes of undesirable students. | 1 2 3 4 5 6 7 8 9 10 11 |
| 23. | To provide present and future workers the training opportunity to broaden their skills and to increase earning powers. | 1 2 3 4 5 6 7 8 9 10 11 |
| 24. | To provide job skills for students needing to earn their way through further schooling, such as college. | 1 2 3 4 5 6 7 8 9 10 11 |
| 25. | To help break down the common school ideology and the practice of a common education for all. | 1 2 3 4 5 6 7 8 9 10 11 |

| | | Most Important — Least Important |
|---|---|---|
| 26. | To reduce the welfare rolls by helping a person find his role in life. | 1 2 3 4 5 6 7 8 9 10 11 |
| 27. | To help people feel self-sufficient, self-competent, and pride in their abilities so they may become better employees. | 1 2 3 4 5 6 7 8 9 10 11 |
| 28. | To provide agriculture information and experience that will develop a knowledge of the science of agriculture and create and nurture a love of farm life. | 1 2 3 4 5 6 7 8 9 10 11 |
| 29. | To provide extra training for partially trained people, particularly hospital personnel. | 1 2 3 4 5 6 7 8 9 10 11 |
| 30. | To be very strict about vocational-technical program requirements and qualifications for students and exercise caution in sending out graduates who cannot do the required work. | 1 2 3 4 5 6 7 8 9 10 11 |
| 31. | To work closely with business, labor, industry, and the community, and involve them in the education of people. | 1 2 3 4 5 6 7 8 9 10 11 |
| 32. | To provide upgrading of an individual's skills for advancement in present job. | 1 2 3 4 5 6 7 8 9 10 11 |
| 33. | To further skills for those not satisfied with present occupations. | 1 2 3 4 5 6 7 8 9 10 11 |
| 34. | To improve the student's role in athletics for those interested in sports. | 1 2 3 4 5 6 7 8 9 10 11 |
| 35. | To offer training in the field of petroleum production. | 1 2 3 4 5 6 7 8 9 10 11 |
| 36. | To offer training in the operation and maintenance of commercial transportation carriers. | 1 2 3 4 5 6 7 8 9 10 11 |
| 37. | To offer training in photography, wildlife conservation, engineering, typing, and physical education. | 1 2 3 4 5 6 7 8 9 10 11 |
| 38. | To provide a better understanding of labor and management. | 1 2 3 4 5 6 7 8 9 10 11 |
| 39. | To provide experiences which will promote desirable personal characteristics, good work habits, personal pride, and satisfaction in doing a good job. | 1 2 3 4 5 6 7 8 9 10 11 |
| 40. | To provide a sense of worth and achievement to the less capable individual. | 1 2 3 4 5 6 7 8 9 10 11 |

continued on back

| | | Most Important — Least Important |
|---|---|---|
| 41. | To provide a program whereby mentally handicapped students can be taught some skill to become self-sufficient and improve their self image. | 1 2 3 4 5 6 7 8 9 10 11 |
| 42. | To provide general education in the disciplines (English, social studies, and math) that will be needed in the technical and occupational fields. | 1 2 3 4 5 6 7 8 9 10 11 |
| 43. | To work harder at changing the attitudes of the general public, especially administrators, teachers, students, and parents, about vocational-technical education so a more balanced quality of students will attend vocational-technical training. | 1 2 3 4 5 6 7 8 9 10 11 |
| 44. | To offer each high school student a larger area of choice in curriculums. | 1 2 3 4 5 6 7 8 9 10 11 |
| 45. | To serve as an integrative factor between technical and academic classes to help make the study of English and math relevant. | 1 2 3 4 5 6 7 8 9 10 11 |
| 46. | To stress the honor and importance of technical skills in preparing for a vocation and a livelihood. | 1 2 3 4 5 6 7 8 9 10 11 |
| 47. | To offer a variety of employment training opportunities so students may find employment upon high school completion. | 1 2 3 4 5 6 7 8 9 10 11 |
| 48. | To provide the opportunity through youth organizations for students to develop the leadership potential and to become dedicated citizens. | 1 2 3 4 5 6 7 8 9 10 11 |
| 49. | To help students develop the initiative and dependability to hold down a job. | 1 2 3 4 5 6 7 8 9 10 11 |
| 50. | To provide a broader scope of training in job skills not already offered by the public schools because of the financial burden on individual districts. | 1 2 3 4 5 6 7 8 9 10 11 |
| 51. | To provide programs to retrain adults for better jobs or new jobs as they are created. | 1 2 3 4 5 6 7 8 9 10 11 |
| 52. | To provide high school dropouts and the unemployed the opportunity to develop basic skills in order to become gainfully employed. | 1 2 3 4 5 6 7 8 9 10 11 |
| 53. | To make education pertinent to potential dropouts and offer opportunities to these individuals that will encourage them to stay in school through twelve grades. | 1 2 3 4 5 6 7 8 9 10 11 |

| | | Most Important — Least Important |
|---|---|---|
| 54. | To provide a student the opportunity to explore occupational possibilities. | 1 2 3 4 5 6 7 8 9 10 11 |
| 55. | To provide skill training for the personnel needs of business and industry in the state and surrounding states. | 1 2 3 4 5 6 7 8 9 10 11 |
| 56. | To strengthen the state's and community's ability to attract industry by increasing the available manpower. | 1 2 3 4 5 6 7 8 9 10 11 |
| 57. | To provide students occupational classroom instruction and on-the-job training while in school. | 1 2 3 4 5 6 7 8 9 10 11 |
| 58. | To furnish job skills and motivating alternatives to those persons who don't desire or who are unable financially to attend college. | 1 2 3 4 5 6 7 8 9 10 11 |
| 59. | To dignify, upgrade, and improve student and community attitudes toward the work ethic and non-executive occupations. | 1 2 3 4 5 6 7 8 9 10 11 |
| 60. | To give students information as to the types of job skills, the types of jobs available, and the types of training available to them. | 1 2 3 4 5 6 7 8 9 10 11 |
| 61. | To provide skill training for students after the completion of high school. | 1 2 3 4 5 6 7 8 9 10 11 |
| 62. | To assist students in learning those skills for which they have an interest. | 1 2 3 4 5 6 7 8 9 10 11 |
| 63. | To provide physical therapy and human rehabilitation services for students. | 1 2 3 4 5 6 7 8 9 10 11 |
| 64. | To provide training in the areas of dentistry, optometry, and laboratory and X-ray technicians. | 1 2 3 4 5 6 7 8 9 10 11 |
| 65. | To provide training in interior and decorative structural design. | 1 2 3 4 5 6 7 8 9 10 11 |

OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION
FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

May 24, 1974

MEMORANDUM

TO: DELPHI Participants

FROM: Rick Brooks, Graduate Research Assistant

SUBJECT: DELPHI Correspondence Number Two

A short time ago we mailed you correspondence sheet number two for your rating of the roles of vocational-technical education (DELPHI technique). This memorandum is to remind you that this information is very valuable to us and your participation is important. If you have not already done so, please fill out the enclosed correspondence sheet and return it immediately. This information is needed in order for us to continue the study.

RB/XET-01/10

# APPENDIX D

TABLE VII

OVERALL AND INDIVIDUAL GROUPS' MEAN RATINGS OF THE PERCEIVED ROLES OF VOCATIONAL AND TECHNICAL EDUCATION

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 1. | To provide technical training for unskilled workers. | 3.00 | 4.67 | 2.46 | 3.11 | 2.25 | 2.27 | 2.96 |
| 2. | To provide training for those people who are especially adaptable to manual arts. | 2.67 | 4.50 | 4.00 | 4.11 | 2.95 | 4.91 | 3.85 |
| 3. | To help students analyze and solve business and economic problems with reasonable judgment. | 3.33 | 4.17 | 5.92 | 5.95 | 5.35 | 4.18 | 4.81 |
| 4. | To help individuals improve their home environment and the quality of personal and family life. | 9.00 | 3.83 | 5.77 | 5.00 | 4.65 | 4.45 | 5.45 |
| 5. | To provide skill training in areas that would complement a college education. | 2.33 | 4.50 | 4.69 | 6.00 | 6.00 | 4.09 | 4.60 |
| 6. | To assist students in learning those skills for which they have an aptitude. | 2.00 | 3.58 | 3.08 | 2.37 | 2.55 | 2.91 | 2.74 |
| 7. | To provide information to students regarding financial aid available. | 3.33 | 4.58 | 5.85 | 5.79 | 7.35 | 71.8 | 5.68 |

TABLE VII (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 8. | To provide students with moral training for the business world and human relationships. | 9.00 | 5.00 | 6.39 | 4.53 | 5.20 | 4.91 | 5.83 |
| 9. | To develop an awareness of responsibility as a member of the society and the legal aspects connected with these responsibilities. | 8.33 | 4.50 | 6.31 | 4.37 | 4.85 | 5.82 | 5.69 |
| 10. | To provide basic homemaking and nutritional skills with utilitary purposes. | 4.67 | 4.67 | 6.46 | 6.11 | 5.50 | 6.55 | 5.66 |
| 11. | To provide students with education they can use in everyday life such as management of time, talents, money, and energy and how to work on a set time schedule. | 4.33 | 3.83 | 4.46 | 3.58 | 4.35 | 2.91 | 3.91 |
| 12. | To offer opportunities to fourteen and fifteen year olds as helpers or aides in various occupations. | 8.00 | 5.75 | 6.54 | 5.42 | 6.00 | 4.45 | 6.02 |
| 13. | To develop a realistic self understanding regarding decisions relative to career choices in a vocation that they enjoy rather than to be in a job just for the sake of a livelihood. | 3.33 | 3.17 | 4.23 | 2.90 | 3.05 | 5.00 | 3.61 |

TABLE VII (CONTINUED)

| Statement No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 14. | To provide students the opportunity to learn how to run a self-employed business. | 2.33 | 5.33 | 5.23 | 4.37 | 5.65 | 5.00 | 4.65 |
| 15. | To provide a background for understanding the need for continuing education and training in the various career areas. | 3.33 | 4.25 | 3.69 | 3.21 | 4.00 | 3.09 | 3.59 |
| 16. | To provide enrichment courses needed for a well-rounded education and skills that might be used creatively for leisure time. | 5.33 | 6.25 | 7.46 | 5.32 | 6.90 | 5.36 | 6.10 |
| 17. | To teach skills for locating, applying for, and interviewing for a job. | 1.67 | 3.50 | 4.62 | 3.00 | 2.65 | 4.00 | 3.24 |
| 18. | To teach good work habits and the importance of jobs. | 1.00 | 3.42 | 4.08 | 1.74 | 2.90 | 2.64 | 2.63 |
| 19. | To provide basic skill training and meet the needs of those with fewer abilities so they might become useful, productive wage earners. | 3.00 | 3.75 | 3.15 | 2.21 | 2.40 | 4.27 | 3.13 |
| 20. | To build attitudes which develop self-discipline in work, study, and play. | 3.33 | 3.75 | 4.39 | 2.21 | 3.25 | 4.82 | 3.62 |

TABLE VII (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 21. | To give a student a skill which he may use much later in life such as a second occupation (perhaps after retirement). | 6.33 | 4.92 | 7.92 | 5.90 | 5.90 | 4.73 | 5.95 |
| 22. | To be used as a catch-all to rid other classes of undesirable students. | 10.67 | 9.33 | 9.62 | 9.95 | 11.00 | 8.64 | 9.86 |
| 23. | To provide present and future workers the training opportunity to broaden their skills and to increase earning powers. | 2.67 | 4.75 | 3.23 | 3.58 | 3.05 | 3.00 | 3.38 |
| 24. | To provide job skills for students needing to earn their way through further schooling, such as college. | 1.67 | 5.17 | 6.23 | 5.74 | 6.45 | 2.91 | 4.69 |
| 25. | To help break down the common ideology and the practice of a common education for all. | 9.33 | 6.17 | 7.15 | 6.68 | 6.20 | 7.00 | 7.08 |
| 26. | To reduce the welfare rolls by helping a person find his role in life. | 6.67 | 5.50 | 4.23 | 3.21 | 3.65 | 2.55 | 4.30 |
| 27. | To help people feel self-sufficient, self-competent and pride in their abilities so they may become better employees. | 2.00 | 3.42 | 4.54 | 2.42 | 2.90 | 3.63 | 3.15 |

TABLE VII (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 28. | To provide agriculture information and experience that will develop a knowledge of the science of agriculture and create and nurture a love of farm life. | 4.00 | 5.25 | 6.92 | 6.53 | 5.45 | 5.5 | 5.61 |
| 29. | To provide extra training for partially trained people particularly hospital personnel. | 3.00 | 4.83 | 5.92 | 5.21 | 5.00 | 4.55 | 4.75 |
| 30. | To be very strict about vocational-technical program requirements and qualifications for students and exercise caution in sending out graduates who cannot do the required work. | 1.00 | 5.83 | 4.69 | 4.00 | 3.85 | 5.36 | 4.12 |
| 31. | To work closely with business, labor, industry, and the community, and involve them in the education of people. | 1.67 | 3.75 | 3.46 | 2.79 | 2.30 | 4.91 | 3.14 |
| 32. | To provide upgrading of an individual's skills for advancement in present job. | 2.67 | 4.83 | 3.77 | 3.42 | 2.70 | 3.73 | 3.52 |
| 33. | To further skills for those not satisfied with present occupations. | 3.00 | 5.50 | 4.15 | 5.05 | 3.50 | 11.00 | 5.36 |
| 34. | To improve the student's role in athletics for those interested in sports. | 8.33 | 8.25 | 8.08 | 9.32 | 10.25 | 5.36 | 8.26 |

TABLE VII (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 35. | To offer training in the field of petroleum production. | 4.33 | 7.92 | 6.08 | 6.84 | 6.95 | 4.09 | 6.03 |
| 36. | To offer training in the operation and maintenance of commercial transportation carriers. | 4.00 | 7.17 | 6.38 | 6.05 | 5.90 | 5.82 | 5.88 |
| 37. | To offer training in photography, wildlife conservation, engineering, typing, and physical education. | 2.33 | 6.33 | 6.08 | 6.47 | 5.45 | 3.73 | 5.06 |
| 38. | To provide a better understanding of labor and management. | 3.33 | 4.92 | 5.54 | 4.26 | 3.60 | 3.82 | 4.24 |
| 39. | To provide experiences which will promote desirable personal characteristics, good working habits, personal pride, and satisfaction in doing a good job. | 2.67 | 3.25 | 3.85 | 2.21 | 2.00 | 2.18 | 2.69 |
| 40. | To provide a sense of worth and achievement to the less capable individual. | 1.67 | 4.50 | 4.23 | 2.58 | 2.35 | 3.36 | 3.12 |
| 41. | To provide a program whereby mentally handicapped students can be taught some skill to become self-sufficient and improve their self image. | 2.00 | 4.17 | 4.23 | 2.42 | 3.30 | 2.55 | 3.11 |

TABLE VII (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 42. | To provide general education in the disciplines (English, social studies, and math) that will be needed in the technical and occupational fields. | 4.67 | 6.25 | 4.23 | 5.05 | 5.15 | 3.36 | 4.78 |
| 43. | To work harder at changing the attitudes of the general public, especially administrators, teachers, students, and parents, about vocational-technical education so a more balanced quality of students will attend vocational-technical training. | 2.67 | 5.67 | 5.08 | 4.42 | 2.80 | 2.64 | 3.88 |
| 44. | To offer each high school student a larger area of choice in curriculums. | 1.00 | 5.00 | 4.00 | 3.68 | 3.25 | 2.36 | 3.21 |
| 45. | To serve as an integrative factor between technical and academic classes to help make the study of English and math relevant. | 1.33 | 5.33 | 4.08 | 4.37 | 5.05 | 4.36 | 4.08 |
| 46. | To stress the honor and importance of technical skills in preparing for a vocation and a livelihood. | 1.33 | 4.75 | 5.15 | 3.68 | 2.50 | 5.27 | 3.78 |
| 47. | To offer a variety of employment training opportunities so students may find employment upon high school completion. | 4.00 | 3.67 | 3.23 | 3.00 | 2.45 | 2.45 | 3.13 |

TABLE VII (CONTINUED)

| Statement No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 48. | To provide the opportunity through youth organizations for students to develop the leadership potential and to become dedicated citizens. | 6.00 | 5.08 | 3.31 | 3.84 | 4.40 | 3.64 | 4.37 |
| 49. | To help students develop the initiative and dependability to hold down a job. | 1.67 | 3.92 | 5.00 | 1.95 | 2.30 | 2.82 | 2.94 |
| 50. | To provide a broader scope of training in job skills not already offered by the public schools because of the financial burden on individual districts. | 2.00 | 3.83 | 4.38 | 2.42 | 2.80 | 5.00 | 3.40 |
| 51. | To provide programs to retrain adults for better jobs or new jobs as they are created. | 4.67 | 5.42 | 3.92 | 3.47 | 3.05 | 3.73 | 4.04 |
| 52. | To provide high school dropouts and the unemployed the opportunity to develop basic skills in order to become gainfully employed. | 4.67 | 4.67 | 3.46 | 2.80 | 2.30 | 4.82 | 3.78 |
| 53. | To make education pertinent to potential dropouts and offer opportunities to these individuals that will encourage them to stay in school through twelve grades. | 4.67 | 3.83 | 3.38 | 2.16 | 3.25 | 2.27 | 3.26 |

TABLE VII (CONTINUED)

| Statement No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 54. | To provide a student the opportunity to explore occupational possibilities. | 2.67 | 2.92 | 4.15 | 3.58 | 2.90 | 3.27 | 3.24 |
| 55. | To provide skill training for the personnel needs of business and industry in the state and surrounding states. | 1.67 | 4.00 | 3.08 | 3.53 | 3.30 | 4.67 | 3.37 |
| 56. | To strengthen the state's and community's ability to attract industry by increasing the available manpower. | 2.67 | 4.83 | 3.31 | 3.89 | 3.10 | 3.73 | 3.58 |
| 57. | To provide students occupational classroom instruction and on-the-job training while in school. | 1.67 | 2.92 | 4.15 | 3.58 | 2.65 | 2.91 | 2.98 |
| 58. | To furnish job skills and motivating alternatives to those persons who don't desire or who are unable financially to attend college. | 1.00 | 4.00 | 2.38 | 2.84 | 2.55 | 3.09 | 2.64 |
| 59. | To dignify, upgrade, and improve student and community attitudes toward the work ethic and non-executive occupations. | 1.67 | 3.92 | 3.92 | 3.16 | 2.70 | 3.91 | 3.21 |
| 60. | To give students information as to the types of job skills, the types of jobs available, and the types of training available to them. | 1.33 | 3.50 | 3.69 | 3.16 | 2.95 | 5.27 | 3.31 |

TABLE VII (CONTINUED)

| State-ment No. | Statements of Roles | Parents N = 3 | Teachers N = 15 | School Board Members N = 15 | School Administrators N = 21 | School Counselors N = 24 | Students N = 11 | Overall N = 89 |
|---|---|---|---|---|---|---|---|---|
| 61. | To provide skill training for students after the completion of high school. | 2.33 | 5.08 | 3.23 | 2.58 | 2.85 | 3.91 | 3.33 |
| 62. | To assist students in learning those skills for which they have an interest. | 1.33 | 3.75 | 2.85 | 2.95 | 2.30 | 2.55 | 2.62 |
| 63. | To provide physical therapy and human rehabilitation services for students. | 8.33 | 6.33 | 5.39 | 6.58 | 5.25 | 4.00 | 5.98 |
| 64. | To provide training in the areas of dentistry, optometry, and laboratory and X-ray technicians. | 2.00 | 6.42 | 6.31 | 6.21 | 5.70 | 4.55 | 5.19 |
| 65. | To provide training in interior and decorative structural design. | 3.33 | 6.58 | 7.31 | 6.32 | 6.05 | 6.27 | 5.97 |

VITA 2

Rickey James Brooks

Candidate for the Degree of

Doctor of Education

Thesis: A DELPHI STUDY OF PARENTS', TEACHERS', SCHOOL BOARD MEMBERS', SCHOOL ADMINISTRATORS', SCHOOL COUNSELORS', AND STUDENTS' PERCEPTIONS OF THE ROLES OF VOCATIONAL AND TECHNICAL EDUCATION IN OKLAHOMA

Major Field: Vocational-Technical and Career Education

Biographical:

Personal Data: Born in El Reno, Oklahoma, July 2, 1947, the son of Garnet O. and Helen Brooks.

Education: Graduated from Shamrock High School, Shamrock, Texas, in May, 1965; attended Sayre Junior College, Sayre, Oklahoma, from September, 1965 to May, 1967, received the Associate of Applied Science Degree in May, 1967, with a major in Electronics Technology; attended Oklahoma State University, Stillwater, Oklahoma, from September, 1967 until graduation with a Bachelor of Science degree in January, 1970, with a major in Technical Education; engaged in graduate study at Oklahoma University, Norman, Oklahoma, University of Dayton, Dayton, Ohio, National Science Foundation Fellow, Southwestern State College, Weatherford, Oklahoma; completed requirements for the Master of Science degree, with a major in Technical Education, at Oklahoma State University in May, 1973, completed requirements for the Doctor of Education degree, with a major in Vocational-Technical and Career Education at Oklahoma State University in July, 1974.

Professional Experience: Teacher of Technical Electronics at Oklahoma City Area Vocational and Technical Center, Oklahoma City, Oklahoma, from January, 1970 to July, 1970. Instructor of Electronics Technology at Sayre Junior College from September, 1970, to May, 1972. Graduate Research Assistant, Oklahoma State Department of Vocational and Technical Education, Stillwater, Oklahoma, from June, 1972 to present.

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