

A STUDY OF ATTITUDES OF SCHOOL ADMINISTRATORS AND BOARD  
OF EDUCATION MEMBERS TOWARD THE VOCATIONAL  
EDUCATION PROGRAMS IN NORTH TEXAS

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A DISSERTATION  
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BY

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Dedicated to Those of Reason and Understanding . . .

May they thrive and flourish.



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## CHAPTER I

### INTRODUCTION

In the United States those responsible for the development, implementation, and evaluation of vocational education programs for secondary schools, are aware of the factors which determine the success or failure of such programs. Furthermore, the effect of the attitudes of school administrators and board of education members toward the effectiveness of vocational education programs has generated a great amount of discussion. Woerdehoff and Bentley (1969) pointed out that school administrators and board of education members could influence the direction of their school districts, and depending on their attitudes toward vocational education, the district would have a more or less effective vocational education program. The authors further stated:

In terms of probable inference, the school administrators are in a favorable position to exert influence on the curriculum design of the secondary school. Consequently, it is reasonable to assume that their viewpoints regarding vocational education contribute much toward the degree of acceptance or rejection of this phase of secondary education and the way the program is carried out. (p. 297)



### Statement of the Problem

The problem of this study was to determine the attitudes of school administrators and board of education members toward vocational educational programs at the secondary level in Denton County of North Texas.

### Purposes of the Study

The purposes of this study were:

1. To determine the attitudes of school administrators and board of education members toward vocational education programs at the secondary level in Denton County of North Texas.
2. To identify if any significant differences existed between the attitudes of school administrators and board of education members toward vocational education programs at the secondary level in Denton County of North Texas, and to describe any differences encountered.
3. To develop a model based on the process of this study which could be utilized in attitudinal studies toward vocational education programs in an emerging industrial country.

### Need for the Study

An evaluation of the attitudes of school administrators and board of education members toward vocational education programs appears to be an appropriate measure to take to determine the extent to which such programs could achieve success or failure in any specified area. This could be corroborated by determining if the attitudes of the administrators and board members are supportive or non-supportive of vocational education programs at the secondary level. The information obtained from the respondents could be useful in developing, improving, implementing, and evaluating vocational education programs at the secondary level.

A need to determine the attitudes of school administrators and board of education members toward vocational education programs in Denton County of North Texas for a good reason. Denton County is no longer only an agrarian area, but is developing into an industrialized area. In fact, Denton County is likely to become largely industrialized because of its proximity to ever-expanding metropolitan areas of Fort Worth and Dallas. It is generally the case that when a city, county, state or nation becomes industrialized, it requires trained individuals to supply its manpower needs.

### Significance of the Study

The significance of this study was twofold:

1. To identify evidences derived from the attitudes of school administrators and board of education members toward vocational education programs which could assist in planning, developing, implementing, and evaluating vocational education programs in a specified area.
2. To develop a model based on the process utilized to collect data for this study. The process could thus be used in conducting attitudinal studies in a national setting, especially in emerging industrial countries.

### Limitations of the Study

The limitations of this study were as follows:

1. The population for this study was limited to school administrators and board of education members residents in Denton County of North Texas.
2. Only eleven school districts of Denton County were utilized in this study. The Denton State School, a state school for retarded citizens, was not included in this study.
3. The study was restricted to attitudes of the respondents, and did not seek to determine their behavior toward vocational education.

4. The study was limited to all restrictions imposed by the use of the questionnaire in survey studies.

### Basic Assumptions

The basic assumptions for this study included the following:

1. Attitudes can be defined, elicited, and measured.
2. Attitudes of school administrators and board of education members toward vocational education programs are important factors to consider in determining the success or failure of such programs.
3. Responses of the participants are accurate to the best of their knowledge, and truly reflect their attitudes toward vocational education programs at the secondary level.
4. The instrument employed to collect data for this study was applicable to the research hypotheses positing the outcome of the study.
5. The method utilized for this study contributed to development of a model for conducting similar studies for emerging vocational education programs (see Chapter VI).

### Definition of Terms

For the purposes of this study, the following terms are defined:

1. Administrator (of schools). The chief school officer of the school system who is responsible for the overall functions of the school operations.

2. Attitudes toward vocational education programs. The opinions, concepts, perceptions or ideas of individuals toward vocational education programs as measured by the instrument employed to obtain such attitudinal information.

3. Economic factors. The funding and operational cost of vocational education programs and the direct relationship of the impact of such factors upon the success or failure of such programs.

4. Evaluation factors. The standard or judgement by which the quality of vocational education programs is determined.

5. Independent School District. A specified self-governing school district or districts offering a complete program of education from K through 12 grades, which may include vocational education programs.

6. Responsibility factors. The level of decision-making by policy-makers at the secondary level, who are concerned with planning, developing, implementing, and evaluating vocational educational programs.

7. Role and value factors. The image and functions of vocational education programs in maintaining quality programs compatible to the world of work.

### Research Hypotheses

For the purposes of this study, four research hypotheses were tested to determine if there were differences between the attitudes of the respondents. The research hypotheses posited the following:

- Ho<sub>1</sub>: There is significant difference between the attitudes of school administrators and board of education members toward the economic factors affecting vocational education programs at the secondary level.
- Ho<sub>2</sub>: There is significant difference between the attitudes of school administrators and board of education members toward the evaluation factors affecting vocational education at the secondary school.
- Ho<sub>3</sub>: There is significant difference between the attitudes of school administrators and board of education members toward the responsibility factors affecting vocational education programs at the secondary setting.
- Ho<sub>4</sub>: There is significant difference between the attitudes of school administrators and board of education members toward role and value

factors affecting vocational education programs at the secondary schools.

### Summary

Chapter I has described the various components intended for the implementation of this study including purposes and research hypotheses positing the outcome of the study. The remaining four chapters include:

Chapter II which presents the information derived from a review of literature;

Chapter III which describes the methodological steps formulated for the accomplishment of this study;

Chapter IV which presents and analyzes the data obtained from the respondents; and

Chapter V which discusses the findings of the study, establishes conclusions, and poses recommendations;

Chapter VI which presents a model for conducting and utilizing attitudinal studies toward vocational education programs at the secondary level in an emerging industrial country.

## CHAPTER II

### REVIEW OF LITERATURE

For the purposes of this study, the review of literature has been divided into three sections:

1. Attitudes and techniques of Attitude Measurement
2. Attitude Studies Toward Vocational Education
3. Summary

#### Attitudes and Techniques of Attitude Measurement

There are many different definitions of attitudes; however, the definitions are related to a certain extent, if not similar. Remmers (1969) discussed the relationship of attitude and behavior, and the components of attitudes, as quoted by Gardner (1972):

Attitudes may be defined as an affectively toned idea or group of ideas predisposing the organism to action with reference to specific attitudes or objects . . . . Attitudes are theoretically a component of all behavior, overt or covert . . . . A child will acquire attitudes like those of his or her friends, and the other primary groups with which he or she associates . . . . In general, the closer the relationship between different individuals, the greater will be the potency of such relationship in the formation of attitudes.  
(p. 16)



A second description or definition of attitudes has been formulated by Zimbardo (1969) who stated:

Attitudes have generally been regarded as either mental readiesses or implicit predispositions which exert some general and consistent influence on a fairly large class of evaluative responses. These responses are usually directed toward some object, or group. In addition, attitudes are seen as enduring predispositions, but ones which are learned rather than innate. Thus, even though attitudes are not momentarily transient, they are susceptible to change. (p. 6)

Zimbardo further presented attitudes as being originated from three components, namely; affect, cognition, and behavior, and described these components in the following manner:

The affective component consists of a person's evaluation of linking of or emotional response to some object or person. The cognitive component has been conceptualized as a person's beliefs about or factual knowledge of, the object or person. The behavioral component involves the person's overt behavior directed toward the object or person. (p. 7)

McNemar (1946) in defining attitudes stated:

The common element of most definitions of social attitudes is that such an attitude is a readiness or tendency to act or react in a certain manner. No one has ever seen an attitude. An attitude, however real to its possessor, is an abstraction, the existence of which is inferred either from non-verbal overt behavior or verbal and symbolic behavior. (p. 289)

Thurstone (1967) theorized that an opinion or attitude is a verbal expression of perceived ideas. Thurstone further stated that unfortunately, it is impossible to see an

attitude as a concrete, definable object. However, even though attitudes are not visible, they do, in fact, and can be measured. For example, the two most common methods of securing data concerning attitudes, are the interview and the questionnaire technique.

Researchers appear to agree that the most practical method for gathering data for attitude studies is the questionnaire technique. Good (1954) believed that the questionnaire is especially useful in descriptive-survey instruments in securing information from widely scattered sources and when it is not practical or possible to see the respondents personally.

In regard to measurement of attitudes, several techniques have been developed and employed in different studies. However, it seems that such measurements may not be as reliable when applied to attitudes. Noll (1967) stated that one of the major problems concerning with attitude measurement is the validity of the survey. The value of the score, and thus the measure of attitudes, is dependent upon the cooperation of respondents. It is impossible to determine if the subject is honestly expressing his beliefs or if his actual behavior conforms to his responses.

Zimbardo (1969) asserted that the affective component of attitudes could be measured by physiological responses or

verbal statements of likes and dislikes. Zimbardo also stated that the cognitive component of attitudes could be measured by self-rating of beliefs or by the amount of knowledge which a person has about a topic. Zimbardo concluded that the behavioral component of attitudes could be measured by direct observation of how the person behaves in specific stimulus situations.

Noll (1967), when discussing measurement of attitudes and methods of eliciting attitudes, expressed his conclusions that the measurement of attitudes is commonly carried out by self-report measures. One method is to present to the subject a list of statements which express attitudes varying widely from very favorable to very unfavorable.

Jahoda (1966) declared that one of the problems encountered when attempting to get a clear value of attitudes is that there is a wide range of relationships between the attitudes and behaviors of individuals.

There are various techniques and scales designed to measure or evaluate attitudes, opinions or beliefs. An early technique, developed by Thurstone in 1929, was made up of twenty independent variables or statements of opinion toward a particular issue allowing the respondents to express their attitudes from favorable to unfavorable.

A relatively reliable scale widely used by researchers to evaluate attitudes was developed by Likert (1932). The

Likert scale consists of a series of opinion statements which allows the respondent to indicate the extent to which he or she agrees or disagrees with a certain issue. The value scores are derived from a five-point scale attributed to each statement.

Osgood's semantic differential bipolar scale is another example of measures of attitudes, traits or behavior of individuals according to Zimbardo (1969).

It may be concluded then, that attitudes do exist and can be defined with certain limitations and that an appropriate method to elicit measurable attitudes is by means of personal interview or questionnaires. Based upon Thurstone's and Likert's scales, it is possible to develop evaluative instruments to measure attitudes, opinions, beliefs or perceptions of individuals concerning their readiness to act or react toward attitudinal statements related to specific subjects or persons.

#### Studies of Attitude Toward Vocational Education

Various studies related to attitudes toward vocational education programs have been conducted in the United States in which school administrators and board of education members have been included.

✓ Davita (1968) conducted a study of attitudes toward vocational education in West Virginia in which he included school administrators and board of education members. Findings of the study revealed that the respondents believed that vocational education programs were inadequate because of the lack of financial support; that students were not being properly trained to meet the demands of the world of work; that not enough variety of programs were being offered in their counties to meet the diverse interests, abilities, and needs of the students; that the cost of vocational education was justified in terms of the vocationally trained individuals who become useful members of society; and that vocational education programs for youth and adults were functions of the public school system.

Woerdehoff and Bentley (1969) reported the results of a study of the viewpoints of school administrators toward vocational education at the secondary level, and indicated that school administrators in general believed that the responsibility of providing vocational education programs and encouraging such programs was that of the secondary schools with their administrators' support.

✓ Attitudes toward vocational education, as perceived by secondary school administrators, counselors, and other key

persons in the system, have often been a negative one, particularly as applied to students' potential.

✓ Hoyt (1970) stated that vocational educators should be aware of the reasons for negative attitudes toward vocational education. He outlined some of the negative attitudes of secondary school counselors toward vocational education:

1. The first negative perception of high school counselors is related to the attempt of vocational educators trying to turn out skilled technicians at the secondary level.
2. That vocational-technical education does not offer the students sufficient variety of choices.
3. That vocational-technical educators do not wish to provide for "all students," but want to select their students.
4. Vocational-technical educators see their programs as separate from "regular" school, that is, they see themselves apart. (p. 22)

✓ Keller (1965) conducted a study in which he included attitudes of school administrators and counselors, and reported that the attitudes of such school figures revealed a negative perception of vocational education programs. Keller further stated that too often administrators, counselors, and other school personnel never consider vocational education as being suitable for the student who can achieve in academic work.

Miller (1971) reported the results of studies conducted at Oklahoma State Tech, in which the attitudes of counselors and school administrators at the secondary school revealed negative status toward vocational education programs and the referral of students to such programs by these individuals.

Spengler (1970) conducted a study of attitudes of school board members toward vocational education in the state of New York, and based on measurements derived from a Likert type scale, there were significant differences between the attitudes of the respondents. Spengler went to declare that it appeared that the measurement was a difference of degree of positive attitude rather than a difference in attitudes toward vocational education and attitude toward other programs. It was apparent that school board members from urban school districts had a more positive attitude toward vocational education than school board members from cities or rural school districts.

It appears that the image of vocational education as perceived by the public in general is that such an education is for the "any status" students. Shultz (1971) conducted a study in the state of Oklahoma concerning the image of vocational education, and found that in general most persons responding to the survey were favorable toward vocational education programs. However, it was found that the public

was not well informed about availability and variety of such programs.

Wenrich (1964) conducted a comparative study of attitudes toward vocational education in Ann Arbor, Michigan in which he included school administrators. It was found that school administrators were favorable toward vocational education. It was also found that school administrators revealed positive attitude toward expansion and improvement of vocational education at the secondary level.

Woerdohoff and Bentley (1969) reporting the results of an attitude study of school administrators and board of education members toward vocational education, indicated the attitudes of such individuals were favorable toward vocational education in proportion to the degree of experience these individuals had in vocational education.

Kernes (1967) conducted a study of attitudes toward vocational education in which he examined the viewpoints of Missouri secondary school superintendents and boards of education presidents. Kernes found that the majority of secondary school administrators believed that at least thirty percent of the secondary school budget should be spent for vocational education programs. Kernes also found that the majority of the school board presidents believed that vocational education programs, as currently offered,



did not serve the needs of high school students adequately. It was also reported that the attitude of the respondents toward vocational education was favorable.

Another study of attitudes toward vocational education was conducted by Cavnar (1967). He concluded that the majority of school administrators believed that the current status of vocational education offerings did not meet the needs of the students in a satisfactory manner, that the current vocational curriculum was deficient. Also, he pointed out that more financial support was required in order to develop more affective vocational education programs.

Although the literature indicates that the image of vocational education has been a negative one in most instances in the past, it appears that at the present this situation has been changing. Shilt (1970) indicated that one of these reasons for the positive change of negative attitudes toward vocational education has been affected by the impact of the Vocational Education Amendments of 1968. Shilt pointed out three major changes which seem positive:

1. There is a general awakening on the part of school administrators which recognizes the potential of vocational education as a productive educational process.

2. One of the most significant factors in the changing image of vocational education is related to the type and amount of research being conducted in this field.
3. Guidance and counseling are taking on new and added responsibilities as vocational education serves more people at all levels and at all stages of development. (p. 15)

Cronkite (1971) indicated that in order for school administrators and other school figures to have positive attitudes toward vocational education, they would need to be better informed about such an educational process. Thus, the attitudes of school administrators toward vocational education programs could be influenced by vocational education courses for administrators and by improved sources of information for administrators in regard to vocational education programs. Cronkite also presumed that the attitudes of school administrators toward vocational education programs could affect such educational process positively or negatively.

Based upon the information thus far presented, it appears that studies of attitudes toward vocational education which included secondary school administrators and board of education members indicate that both positive and negative attitudes exist among such individuals. Attitudes of school administrators and board of education members, it may be

assumed, do have direct influence upon the success of failure of vocational education programs at the secondary schools.

According to authorities in the field of vocational education and related educational settings, there are specific factors which influence the attitude of school administrators and board of education members toward vocational education programs. Chang (1971) stated:

Many secondary school administrators hesitate to promote vocational education programs because they believe that a bias or stigma is attached to vocational education, and they want to avoid any negative status association. (p. 272)

Davita (1968), on the other hand, concluded that the image of vocational education programs as perceived by secondary school administrators and counselors has been distorted in such a way that their attitudes toward vocational education programs could be a deciding factor toward its success or failure.

Thus, a review of the literature on studies of attitudes toward vocational education programs indicates that the attitudes of secondary school administrators and board of education members toward vocational education programs are important factors to evaluate because of their implication on the process of such education.

### Summary

In summary, a review of literature related to attitudes, attitude measurement, and studies of attitudes toward vocational education revealed the following:

1. Attitudes do exist, can be defined and measured.
2. Attitudes can be defined as a verbal or non-verbal expression of a behavior overt or covert as elicited by the proper stimulus.
3. The measurement of attitudes is carried out by means of self-report measures in which the subject is asked to respond to statements expressing attitudes toward a topic or subject varying widely from very favorable to very unfavorable as pointed out by Noll (1967).
4. Secondary school administrators and board of education members are key persons in the school system whose attitudes toward vocational education programs could be determined and evaluated by means of self-report instruments and scales of measurements such as modified Thurstone's and Likert's scales.
5. Attitudes of school administrators and board of education members toward vocational education programs could be a deciding factor in determining the success or failure of such programs at the secondary schools.

## CHAPTER III

### METHODOLOGY

The purposes of this study were to determine the attitudes of secondary school administrators and board of education members toward vocational education programs in the Denton County of North Texas, and to ascertain if significant differences existed between the attitudes of the respondents. The stated purposes of this study were, in fact, accomplished by means of information obtained from the subjects utilizing a self-report instrument, and by subsequent statistical analysis of the data.

In order to achieve the purposes of this study school administrators and board of education members of all school districts of the Denton County were included in the survey with the exception of the Denton State School, a state supported institution for retarded citizens. Specifically, the population for this study consisted of eleven school district superintendents, twenty-three middle-school and high-school principals, twenty-one counselors, eleven division directors, and seventy-seven board of education members. A total of one hundred and forty-three participants constituted the population for this study. The subjects were identified from the 1979-1980 Texas School Directory.

With regard to the secondary school principals' and counselors' responsibility for orienting and referring students to vocational education programs, these individuals were included in the school administrators group.

### Development of the Instrument

A self-report questionnaire for this study was adapted from an instrument developed by R. C. Wenrich and R. J. Crowley (1964) at the University of Michigan, and an attitudinal instrument developed by Charles Davita (1968). These instruments provided the bases for the format and statements developed by the researcher.

The questionnaire ultimately constructed consisted of two sections; the first, to gather demographic information, the second, to elicit the attitudes of school administrators and board of education members toward vocational education programs at the secondary level.

Formulation of statements for demographic information consisted of eleven items related to sex, age, ethnicity, education, positions, vocational education participation and experiences, and type of school districts served by the participants. Forty statements were devised in order to elicit attitudes toward vocational education at the secondary level, comprising economic, evaluation, responsibility, and

role and value factors. A Likert-type scale was employed to determine summated rating of responses to the forty statements. Tuckman (1972) affirmed that the Likert scale is an appropriate measurement method to register agreement or disagreement with a particular statement of an attitude, belief, or judgement.

The initial questionnaire draft was submitted to a panel of experts in the field of vocational technical education in order to determine ambiguity of the statements. The panel of experts assessed the statements by judging validity of item content and by determining the appropriate categorical factor for item assignment.

Utilizing the suggestions and changes made by the panel of experts, the forty statements were revised and compiled for a pilot study. In early January, 1980, thirty-nine questionnaires were distributed in classroom settings to graduate and undergraduate students in the field of education in the Federation of North Texas Area Universities. That is, nineteen questionnaires were distributed to North Texas State University participants, and twenty to Texas Woman's University participants. They were instructed to respond to each section of the questionnaire. The responses were negatively and positively stated. On the positively stated items, the scoring was as follows: SA=1, A=2, U=3,

D=4, and SD=5. Scoring for the negatively stated items was reversed in order to indicate positivity. Thus, the negative items scoring was as follows: SA=5, A=4, U=3, D=2, and SD=1. The possible total score range was 40 to 200.

The information provided from the questionnaires completed by the participants in the pilot study was analyzed to determine degree of correlation. The reliability coefficient of correlation between the responses of the two groups on the same test was .41, a low correlation. The low correlation, however, could be attributed to uncontrolled differences between groups, rather than item difficulties.

#### Collection of Data

On February 6, 1980, 143 questionnaires accompanied with a letter of transmittal and an addressed stamped envelope were mailed to all school administrators and board of education members of the eleven school districts of Denton County in North Texas. The anonymity of the participants was protected by not requesting their names or signatures in the survey instrument (Appendix B).

The respondents' returns were identified by using a protected coding system to facilitate follow-up of non-respondents, if needed. A total of 119 questionnaires were completed and returned, representing a return rate of



84 percent. Sixty-three questionnaires were returned from school administrators, and 56 from board of education members. All questionnaires returned were completed; therefore, all were utilized in the data analysis.

### Treatment of Data

Descriptive statistics were used to determine frequency and distribution of demographic and response data.

Downie and Heath (1974) pointed out that the t test is appropriately used to test for significant differences between two means derived from data obtained from an instrument which measures attitudes, beliefs, or perceptions. Thus, the t test was used to test the hypotheses posited for this study.

Popham (1967) declared that a non-parametric technique to test differences between the distribution of one sample and some other hypothetical or known distribution could be the chi-square test. Accepting this premise, the chi-square test was utilized to interpret the statistical significance pertaining to agreement or disagreement between the responses of the groups to each of the items.

In summary, this chapter described the methodological steps utilized in conducting this study including selection of subjects, instrument development, determination of the

instrument appropriateness, data collection procedures, and statistical treatment used to analyze the data.

The presentation and analysis of data is described in Chapter IV. Chapter V is a discussion with conclusions and recommendations. Chapter VI described a model for conducting and utilizing attitudinal studies derived largely from information garnered from this study, but specifically designed for an emerging industrial nation.

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

The purposes of this study were to determine the attitudes of school administrators and board of education members toward vocational education programs at the secondary level in Denton County of North Texas. The study also sought to identify if any significant differences existed between the responses of the subjects in relation to four selected factors (economic, responsibility, evaluation, and role and value) which may affect the success of vocational education programs in the secondary schools.

The data presented and analyzed in this chapter is divided into three sections. First, description of the population characteristics; second, statistical testing of hypotheses; and third, statistical analysis of items.

#### Description of the Population Characteristics

The subjects for this study were located in eleven independent school districts of Denton County in North Texas. The eleven independent school districts were: Argyle, Aubrey, Denton, Krum, Lake Dallas, Lewisville, Little Elm, Northwest, Pilot Point, Ponder, and Sanger.

Of the 143 subjects surveyed, 84 percent completed and returned the questionnaires. Since there was a high percentage of returns from the first mailing, it was determined not to conduct a follow-up of nonrespondents. Table 1 shows the distribution of the subjects surveyed and percentage of returned questionnaires.

Table 1  
Distribution of Subjects Surveyed and Percentage  
of Returned Questionnaires

Subjects	Sent	Returned	Total Percent
School Administrators	66	63	96
Superintendents (11)			
Principals (23)			
Division Directors (11)			
Counselors (21)			
Board of Education Members	<u>73</u>	<u>56</u>	<u>73</u>
Total	143	119	84

Of the 119 subjects responding to the survey, 78 percent were male and 22 percent were female. Ages of the respondents ranged from 31 to over 61 years. The mean age of school administrators was approximately 45 years. The mean age for board of education members was 47 years.

Table 2 presents the distribution of the respondents by age categories.

Table 2

Distribution of School Administrators and Board of Education Members' Age Categories and the Percentage of Those Within Each Category

Age Categories	School Administrators		Board Members	
	N	%	N	%
Under 30	3	5	0	0
31-40	16	25	22	39
41-50	22	35	23	41
51-60	17	27	8	14
Over 61	3	5	3	5
No Response	<u>2</u>	<u>3</u>	<u>0</u>	<u>0</u>
Total	63	100	56	100

In regard to the ethnicity of the respondents, 94 percent of the school administrators, and 96 percent of board members were Anglo-Americans; the balance were blacks or nonspecified.

Table 3 shows the distribution of the educational level of respondents.

Table 3  
Distribution of Educational Levels Achieved  
by Respondents and Percentages  
of Such Responses

Educational Level	<u>School Administrators</u>		<u>Board Members</u>	
	N	%	N	%
High School	0	0	10	18
Post-Secondary	0	0	7	12
Bachelor's	1	2	26	46
Master's	16	25	5	9
Post-Master's	40	63	0	0
Doctorate	5	8	8	14
Non-Respondents	<u>1</u>	<u>2</u>	<u>0</u>	<u>0</u>
Total	63	100	56	100

The table indicates that 98 percent of the school administrators possessed educational backgrounds ranging from bachelor's to doctorate. On the other hand, only 69 percent of board members possessed such levels of education.

Though no board of education members had held any previous educational positions, 41 percent of the school administrators indicated other positions held previous to their current ones.

Table 4 shows the distribution of previous enrollment and experiences of the correspondents in vocational education programs. Regarding previous enrollment in vocational education at the secondary level, 73 percent of school administrators responded that they had never participated in such training, while 89 percent of the board of education members replied that they had not participated in such programs.

Table 4  
Distribution of Previous Enrollment and  
Experiences of the Respondents In  
Vocational Education Programs

Vocational Education Contact	<u>School Administrators</u>		<u>Board Members</u>	
	N	%	N	%
<u>Enrollments</u>				
Yes	16	25	6	10
No	46	73	50	89
No Response	1	2	0	0
<u>Experiences</u>				
Yes	18	28	16	28
No	44	70	40	71
No Response	<u>1</u>	<u>2</u>	<u>0</u>	<u>0</u>
Total	63	100	56	100

Table 4 attests, further, that approximately 70 percent of school administrators and board members had no previous experiences in vocational education.

The information provided by the respondents, based on the type of school district (urban or rural) in which each served, denotes that forty-seven percent of the respondents were serving in urban school districts and fifty-two percent in rural school districts.

#### Statistical Analysis of Data

The data, described in the treatment of data, were analyzed in three ways. The responses of each group to each item were first tabulated by the four factors. The research hypotheses positing the outcomes of this study were then tested with the t test as a second step. The forty items were ultimately subjected to the Chi-square test to determine if any significant difference existed between groups in relation to each item.

#### Tabulation of Responses

The responses of the participants are depicted utilizing tables showing frequencies and percentages of ratings related to each of the items within each category.



In order to facilitate statistical analysis and discussion of the analysis of data the five measure scales were categorized into three measure scales, thus: strongly agree and agree were combined into the category of "agree" (1); the middle category "uncertain" (2) remained as stated; and strongly disagree and disagree were simplified into the category of disagree (3).

Table 5 shows the distribution of responses of school administrators and board of education members regarding economic factors of secondary vocational education. The first ten items included in the second section of the questionnaire attended to this factor.

As indicated in Table 5, 46 percent of school administrators agreed that the amount of money spent by public schools is adequate. On the other hand, more than half believe that more money should be set aside to implement and maintain a viable vocational education program. They disagree, however, as to the source of these additional funds.

Approximately 50 percent of school administrators and board members identify federal agencies as a major funding source for vocational education programs (statements 1, 3, 6). At the same time, fewer than 20 percent of the school administrators and board members suggest the use of local tax money to purchase equipment for vocational education

Table 5  
Distribution of Responses of School Administrators  
and Board of Education Members Regarding the  
Economic Factors (Cost) of Vocational  
Education at the Secondary Level

Item Number*	School Administrators.						Board of Education Members..					
	A		U		D		A		U		D	
	N	%	N	%	N	%	N	%	N	%	N	%
1	29	46	9	14	24	38	21	37	7	12	28	50
2	36	57	11	17	15	24	35	62	5	9	16	29
3	18	29	15	24	29	46	10	18	11	20	35	62
4	24	38	14	22	24	38	29	52	4	7	23	41
5	36	57	8	13	17	27	35	62	5	9	15	27
6	21	33	11	17	31	29	14	25	9	16	33	59
7	10	16	1	2	51	81	7	12	4	7	45	80
8	3	5	4	6	56	89	4	7	0	0	52	93
9	6	9	6	9	51	81	2	4	0	0	54	98
10	26	41	11	17	25	40	13	23	8	14	35	62

\*For actual item statements see Appendix B

. Return Number=63

.. Return Number=56

A=Agree  
U=Uncertain  
D=Disagree

programs (statement 8). Paradoxically, 81 percent of the school administrators and almost all the board members did not perceive vocational education programs as too costly in terms of money and time (statement 9).

Statement 10 dealt with the debatable issue whether small school districts should supply funds for their students to attend larger school districts capable of supporting a variety of vocational education programs. Surprisingly, approximately 41 percent of school administrators and board members saw the merits of such an accommodating administrative organization. As a final note, approximately 80 percent of the school administrators and board members agreed that salaries of vocational teachers should not exceed that of non-vocational teachers (statement 7). This suggests that the respondents view no difference in the status of vocational education instructors versus academic teachers.

Table 6 shows the distribution of responses of school administrators and board of education members regarding evaluation factors of vocational education at the secondary level. The evaluation factors were contained in the statements 11 to 20 of the total statements included in the second section of the questionnaire.

Table 6

Distribution of Responses of School Administrators  
and Board of Education Members Regarding the  
Evaluation Factors of Vocational Education  
at the Secondary Level

Item Number*	<u>School Administrators.</u>						<u>Board Members..</u>					
	<u>A</u>		<u>U</u>		<u>D</u>		<u>A</u>		<u>U</u>		<u>D</u>	
	N	%	N	%	N	%	N	%	N	%	N	%
11	11	17	46	72	6	9	6	11	42	75	8	14
12	39	62	20	32	4	6	32	57	19	34	5	9
13	25	40	35	56	3	5	16	29	39	61	6	11
14	17	27	41	65	5	8	19	34	33	59	4	7
15	1	2	62	98	0	0	0	0	0	0	56	100
16	12	19	47	75	4	6	14	25	38	68	4	7
17	3	5	56	89	3	5	3	5	3	5	50	89
18	15	24	31	49	16	25	19	34	20	36	17	30
19	46	73	8	13	8	13	41	73	5	9	10	18
20	32	51	19	30	11	17	33	59	14	55	9	16

\*For actual item statements see Appendix B.

.Return Number=63

..Return Number=56

A=Agree

U=Uncertain

D=Disagree

The majority of school administrators and board of education members were generally uncertain as to the effectiveness of vocational education programs. For example, preparing students for the world of work, and the actual role of vocational education programs in society, were not identified as successes for vocational education programs (statements 11, 13, 14, 16, and 18).

Furthermore, the majority of school administrators were decidedly uncertain in their support of the statements that bright students should be discouraged to enroll in vocational education programs, and that high school students who want to enroll in vocational courses are not mature enough to profit from such programs. While on the other hand, more than two-thirds of the board members demonstrated a more positive attitude toward the issues posed by the statements 15 and 17.

School administrators and board members strongly supported the contention by approximately a two-thirds vote that almost all high school students are interested in vocational education programs (statement 19). In order to explain the relatively high dropout rate in these programs, more than 50 percent of both groups identify the problem as failure of schools to offer a sufficient variety of programs to meet the wide range of student needs (statement 12).

Table 7 presents the responses of school administrators and board of education members regarding the responsibility factors of vocational education. These factors were represented by the third set of ten statements contained in the questionnaire.

The data presented in this table indicate that approximately 50 percent of school administrators and board members were not satisfied that high schools are assuming their rightful responsibility for providing vocational education programs (statement 21). In replying to an allied point, over two-thirds of school administrators and board members believed that public school systems should provide a greater variety of vocational education programs at the secondary level in order to fit the needs of all students, not neglecting training for high school dropouts (statements 25, 26).

The idea of the need for cooperation and support of school policy makers in developing vocational education programs was soundly endorsed in the majority of school administrators and board members who thus believe that cooperation is imperative (statements 22, 24). Furthermore, over two-thirds of the respondents agreed that local business and industry should cooperate with the schools. More specifically, the private sector should assume greater responsibility for providing vocational education training

Table 7

Distribution of Responses of School Administrators  
and Board of Education Members Regarding the  
Responsibility Factors of Vocational  
Education at the Secondary Level

Item Number*	School Administrators.						Board of Education Members..					
	A		U		D		A		U		D	
	N	%	N	%	N	%	N	%	N	%	N	%
21	20	32	13	21	29	46	16	29	13	23	27	48
22	50	79	3	5	9	14	49	87	4	7	3	5
23	41	65	9	14	12	19	37	66	4	7	15	27
24	59	94	2	3	2	3	54	96	0	0	2	4
25	13	21	6	9	43	68	21	37	0	0	35	62
26	52	82	2	3	8	13	47	84	2	4	7	12
27	40	63	16	25	5	8	40	71	8	14	8	14
28	44	70	7	11	10	16	38	68	6	11	12	21
29	59	94	1	2	1	2	52	93	0	0	4	7
30	55	87	5	8	2	3	55	98	0	0	1	2

\*For actual item statements see Appendix B.

.Return Number=63

..Return Number=56

A=Agree

U=Uncertain

D=Disagree

since they ultimately profit from such programs (statements 27, 28, and 29).

On the issue of control of vocational education programs, almost 90 percent of both groups maintained that control of vocational education programs should remain basically local. As a result, they reject federal control of vocational education programs (statements 23, 30).

Table 8 shows the distribution of responses of school administrators and board of education members regarding the role and value factors of vocational education programs at the secondary level. These role factors were contained in the last ten statements of the second section of the questionnaire (Appendix B) related to research hypothesis four.

As evidenced in the table, approximately 50 percent of the survey participants support the idea that vocational education plays a major role in solving problems related to unemployment and entry level of occupation. Consequently, they support vocational education programs in high schools as a means to provide an adequate supply of trained manpower (statements 31, 32, 33, 36, and 40). Nearly 50 percent of the participants believe, furthermore, that a primary goal of vocational education at the secondary level should be to prepare students for specific occupations (statement 38).



Table 8

Distribution of Responses of School Administrators  
and Board of Education Members Regarding Role  
Value Factors of Vocational Education  
Programs at the Secondary Level

Item Number*	<u>School Administrators.</u>						<u>Board of Education Members..</u>					
	<u>A</u>		<u>U</u>		<u>D</u>		<u>A</u>		<u>U</u>		<u>D</u>	
	N	%	N	%	N	%	N	%	N	%	N	%
31	39	62	12	19	10	16	33	59	10	18	13	23
32	31	49	16	25	14	22	22	39	15	26	19	34
33	18	29	27	43	16	25	22	39	24	43	9	16
34	16	25	25	40	20	32	10	18	23	41	23	41
35	14	22	12	19	35	56	12	21	13	23	31	55
36	4	6	3	5	54	86	4	7	0	0	52	93
37	51	81	5	8	5	8	44	79	3	5	9	16
38	28	44	4	6	31	49	18	32	4	7	32	57
39	10	16	23	39	30	48	6	11	19	34	28	50
40	41	65	9	14	13	21	31	55	9	16	14	25

\*For actual item statements see Appendix B.

.Return Number-63

..Return Number=56

A=Agree

U=Uncertain

D=Disagree

Curricular balance seemed important because approximately 50 percent of the school administrators and board members did not identify vocational education as more valuable to students than liberal education (statement 39). Yet, choices are important because two-thirds of the respondents believed that parents should be better informed of the value of vocational education programs (statements 35, 37).

#### Statistical Test of Hypotheses

In order to ascertain if there might be a significant difference between the attitudes of school administrators and board of education members toward vocational education, the research hypotheses of this study were tested by using the  $t$  test. Table 9 shows the distribution of attitudes of respondents toward economic factors (cost) of vocational education programs by the  $t$  test results.

Statistical hypothesis one. No significant difference existed between the attitudes of school administrators and board of education members toward economic factors (cost) of vocational education programs at the secondary level.

The data presented in Table 9 indicates that no significant difference exists between the attitudes of school administrators and board of education members toward economic factors of vocational programs. The  $t$  value of .16

with 117 degrees of freedom was not significant at the .05 level. The null hypothesis is not rejected.

Table 9  
Distribution of Attitudes of School Administrators  
and Board of Education Members Toward Economic  
Factors (Cost) of Vocational Education as  
Determined by the t Test Results

Groups	Mean	Std. Dev.	Std. Error	t Value	df	Prob.
School Administrators*	29.50	3.16	.42	.16	117	.87
Board Members**	29.40	3.87	.49			

\*N=63

\*\*N=56

Statistical hypothesis two. No significant difference existed between the attitudes of school administrators and board of education members toward evaluation factors of vocational education programs at the secondary level.

As presented in Table X there was no significant difference between the attitudes of school administrators and board of education members toward evaluation factors of vocational education as determined by the t test.

Table 10

Distribution of Attitudes of School Administrators  
and Board of Education Members Toward Evaluation  
Factors of Vocational Education as Measured  
the Results of a t Test

Groups	Mean	Std. Dev.	Std. Error	t Value	df	Prob.
School Administrators*	24.75	4.76	.60	.87	106	.39
Board Members**	25.37	3.01	.40			

\*N=63

\*\*N=56

The t value of .87 with 106 degrees of freedom was not significant at the .05 level. Thus, the statistical results revealed that the respondents did not differ significantly in their attitudes toward evaluation factors of vocational education at the secondary level and the null hypothesis is not rejected.

Statistical hypothesis three. No significant difference existed between the attitudes of school administrators and board of education members toward responsibility factors of vocational educations at the secondary level.

Table 11

Distribution of Attitudes of School Administrators and  
Board of Education Members Toward Responsibility  
Factors of Vocational Education as Measured  
By the t Test Performed

Groups	Mean	Std. Dev.	Std. Error	t Value	df	Prob.
School Administrators*	23.32	3.77	.48	.99	113	.33
Board Members**	23.93	2.88	.38			

\*N=63

\*\*N=56

The data presented in Table 11 indicates that the attitudes of the respondents from both groups did not differ significantly. The t value of .99 with 113 degrees of freedom was not significant at the .05 level. The null hypothesis was not rejected.

Statistical hypothesis four. No significant difference existed between the attitudes of school administrators and board of education members toward the role and value of vocational education program at the secondary level.

Table 12

Distribution of Attitudes of School Administrators and  
Board of Education Members Toward Role and Value  
Factors of Vocational Education Programs  
as Determined by t Test Values

Groups	Mean	Std. Dev.	Std. Error	t Value	df	Prob.
School Administrators*	26.70	6.11	.77	1.32	117	.19
Board Members**	28.03	4.76	.64			

\*N=63

\*\*N=56

The data presented in Table 12 indicates that school administrators and board of education members did not differ significantly in their attitudes toward role and value factors of vocational education at the secondary level. The t value of 1.32 with 117 degrees of freedom and a probability of .19 was not significant at the .05 level. Again, the null hypothesis was not rejected.

#### Statistical Analysis of Items

To further examine the attitudes of respondents as indicated by their responses to each one of the forty items included in the questionnaire, a Chi-square test was

computed by groups and items. The basis of this test as suggested by Popham (1967) who stated that the null hypothesis,  $H_0$ , posited for Chi-square test is that the K ranking (judges' rankings) are unrelated. Thus, a significant chi-square value would indicate that the rankings are related in a statistically significant manner.

The data presented in Table 13 indicate that there were significant chi-square values for three out of the ten statements. Item 4 dealt with expansion of vocational education programs even if the funds remained the same. In general, school administrators were more uncertain about the wisdom of expanding the programs without an adequate funding base. Item number 9, dealing with cost of vocational education in terms of money, time and effort, also revealed school administrators as more uncertain. Item 10, which referred to supply of funds from small school districts for their students to participate in vocational education programs in larger school districts, included the higher desire for cooperative arrangements among school administrators.

Table 14 displays the chi-square values for items 11 to 20 under the category of evaluation factors.

Table 15 shows the distribution of chi-square values for items 21 to 30 under the category of responsibility factors.

Table 13  
 Distribution of Chi-square Values for Items\*  
 Significance Determination Based on  
 Ratings of the Respondents

*Items	$\chi^2$	df	Prob. Value	Significant
1	1.53	2	.46	No
2	1.99	2	.36	No
3	3.16	2	.20	No
4	5.75	2	.05	Yes
5	.52	2	.77	No
6	1.25	2	.53	No
7	2.40	2	.30	No
8	2.89	2	.14	No
9	7.70	2	.02	Yes
10	6.18	2	.04	Yes

\*Refers to first ten items of the second section of the questionnaire dealing with economic factors (cost) of vocational education programs at the secondary level (See Appendix B for factual statement).



Table 14

Distribution of Chi-square Values for Items\*  
 Significance Determination Based on  
 Ratings by the Respondents

*Items	$\chi^2$	df	Prob. Value	Significant
11	1.53	2	.46	No
12	.41	2	.81	No
13	2.58	2	.27	No
14	.67	2	.71	No
15	.89	2	.34	No
16	.69	2	.70	No
17	.03	2	.98	No
18	2.57	2	.27	No
19	.89	2	.63	No
20	.66	2	.71	No

\*Refers to the statements 11 to 20 dealing with the evaluation factors of vocational education programs at the secondary level included in the second section of the questionnaire (see Appendix B for factual statements).

Table 15

Distribution of Chi-square Values for Items\*  
 Significance Examination Based on the  
 Ratings Given by the Respondents

*Items	$\chi^2$	df	Prob. Value	Significant
21	.21	2	.89	No
22	2.85	2	.23	No
23	2.16	2	.33	No
24	4.01	2	.13	No
25	8.41	2	.01	Yes
26	.01	2	.99	No
27	3.15	2	.20	No
28	.48	2	.78	No
29	3.03	2	.21	No
30	5.04	2	.08	No

\*Refers to the statement 21 to 30 dealing with the responsibility factors of vocational education programs at the secondary level included in the second section of the questionnaire. (See Appendix B for factual statements).

The data presented in Table 15 indicate that only item 25 dealing with public schools having no obligation to provide occupational education for school dropouts was significant at the .05 level. School administrators as a group were less committed to this goal than were the board members.

Table 16 displays chi-square values for items 31 to 50 under the category of role and value factors. An examination of Table 16 indicates that all ten items related to role value factors of vocational education were not statistically significant.

In summary, this chapter has presented and analyzed all data provided by the respondents. The data included information related to sex, age, ethnicity, educational level, educational position, secondary vocational education enrollment, vocational education experience, type of school district served, and ratings of the forty statements related to four specific categories. The four specific categories included economic factors (cost) of vocational education at the secondary level; evaluation factors of vocational education programs at the secondary level; responsibility factors of vocational education programs at the secondary level; and role and value factors of vocational education programs at the secondary level.

Table 16

Distribution of Chi-square Values of Items\*  
 Significance Examination Based Upon  
 Ratings Given by the Respondents

*Items	$\chi^2$	df	Prob. Value	Significant
31	.86	2	.65	No
32	2.10	2	.34	No
33	2.23	2	.32	No
34	1.46	2	.48	No
35	.22	2	.89	No
36	3.97	2	.13	No
37	1.94	2	.37	No
38	1.50	2	.47	No
39	.59	2	.74	No
40	.73	2	.69	No

\*Refers to statements dealing with role and value factors of vocational education programs at the secondary level (see Appendix B for factual statements).

All items and categories of items were examined to determine if significant difference existed between the attitudes of school administrators and board of education members there was failure to reject. All null hypotheses indicating no significant difference between the attitudes of both groups as measured by t test. The extended analysis of the items revealed four items which were statistically significant.

## CHAPTER V

### DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The problem of this study was to determine the attitudes of school administrators and board of education members toward vocational education programs at the secondary level in the eleven school districts of Denton County of North Texas. Additionally, the study sought to ascertain if there was significant difference between the attitudes of the respondents regarding the four factors (economic, evaluation, responsibility, and role and value) established to measure their attitudes toward vocational education in the secondary schools.

The data were collected from both groups by means of a self-report questionnaire mailed to 66 school administrators and to 77 board of education members on February 6, 1980. By March 3, 1980, 119 questionnaires had been completed and returned by the participants, reaching a return rate of eighty-four percent of the individuals surveyed.

#### Discussion of the Findings

An examination of the data derived from the returns as presented and analyzed in Chapter IV revealed the following

population characteristics. Of the 66 school administrators surveyed, 16 percent were superintendents, 35 percent were principals, 16 percent were division directors, and 32 percent were counselors. The characteristics of the population differed by age, experience, educational level, and profession.

It was found that, in general, economic attitudes of the school administrators and board of education members did not differ significantly. The agreement of the two groups for the majority of items related to economic issues was consistent. They generally support the use of federal funds for vocational education programs and appear to be reluctant to deal with problems associated with increasing local school taxes. They also seem to support a more efficient use of current funds by revealing a desire to establish urban vocational education centers which can be used cooperatively by both urban and rural school districts.

When, however, forty items were examined separately there appeared a measure of significance for three items of the economic category. Item four, namely, expansion of vocational education programs at the secondary level of funding remained the same, showed that school administrators were more reluctant to expand vocational education programs in the absence of funding than were board members.

Responses to item nine, dealing with cost of vocational education programs in terms of money, time and effort, revealed that more school administrators were uncertain about the cost effectiveness of vocational education programs at the secondary level. Item ten, referring to supply of funds from small school districts to pay for their students to acquire vocational skills in larger school districts, indicated that school administrators were more in agreement with the statement than were board members.

More generally, both school administrators and board members identify federal agencies as a major funding source of vocational education programs. As might be expected, the majority of the respondents did not favor the use of local tax money to purchase equipment for vocational education programs. Almost three-quarters of the respondents from both groups believed that there should be no difference between the salary of vocational and academic teachers. This suggests no hierarchical status ordering of academic and vocational teachers.

Evidence on the attitudes of school administrators and board of education members toward evaluation factors of vocational education programs at the secondary level imply that no significant difference exists. An item by item



analysis of evaluation category indicated that the majority of both groups believed almost all high school students are interested in vocational education programs. They also clearly rejected the assertion that vocational education is restricted to a particular type of student, but rather is universal.

Under the responsibility category of vocational education programs, no significant difference was found between the responses of the two groups. In general, they both believed it is the responsibility of the public education system to provide vocational education programs at the secondary level. Both groups, for example, felt that high schools should expand their curricula to include more vocational education courses. Expansion would appear to mean a wide variety of vocational education to fit the needs and abilities of students not going on to college. In general, both school administrators and board members supported the idea that the public school has an obligation for providing vocational training for school dropouts. Board members, perhaps because of the need to deal first hand with the issue, were more supportive of training programs for dropouts.

Despite the readiness to accept federal funds for vocational education, the majority of both groups indicated

that control of the programs should remain basically in the hands of local authorities. Consistent with the penchant for local control there was a decided feeling that local business and industry should assume more responsibility for providing vocational education programs at the secondary level.

The responsibility category, in summary, shows that school administrators and board of education members were in general agreement on the issue of local control and participation. Opinions also coincided on the need for a greater variety of programs, as well as training programs to satisfy the needs of special students.

In the test of the final hypothesis, which dealt with role and value, it was found that no significant difference existed between the attitudes of the two groups toward the social role and value of vocational education programs at the secondary level. An item by item analysis confirmed the lack of difference. Collectively, they were critical of the degree to which program information has been disseminated to parents and to society. In general they support a much more positive and forceful dissemination program.

Both groups perceived vocational education programs in secondary schools as invaluable to society. Towards this end they were generally and especially in accord as to the

potential of such programs for solving unemployment problems. Furthermore, they rejected the substitution of on-the-job training for formal vocational education programs.

When considering the differing levels of education and commitment of school administrators and board members it was assumed that there would be some significant difference between the attitudes of these two groups toward vocational education programs at the secondary level. On the contrary, the data did not reveal the anticipated differences toward economic factors, evaluation, responsibility, and role and value of vocational education programs at the secondary level, except for some specific items.

Instead, the results of this survey support Davita (1968), Woerdehoff and Bentley (1969), Wenrich (1964), Karnes (1967), and Cavenar (1967), studies which also found no significant difference between the attitudes of school administrators and board of education members. However, the study did not support Miller (1971), and Keller (1965). Both these latter researches reported negative attitudes by school administrators and counselors toward vocational education programs.

Generally, this study has shown that school administrators and board of education members possess not only positive attitudes toward vocational education programs, but support

their continued expansion, and stress more effective dissemination of information about vocational education programs.

Because the differing level of education, professional commitment, educational experience and involvement did not reveal differences of attitudes between the two groups toward vocational education programs, other explanations must be considered. One such explanation might be that school administrators and board members were in agreement but for different reasons. Board members, for example, might have a different commitment in the community because of their involvement in business and industry which can benefit directly from vocational education programs. School administrators, on the other hand, might be motivated toward such a commitment by hoping to satisfy the insatiable demand of business leaders for vocational education programs and thereby improve their position in the community. The lack of difference between the two groups can also be explained by Shilt (1968) who pointed out that as a result of Vocational Education Amendments of 1968, there has been a major awakening among school policy makers of recognizing the potential of vocational education programs as an integral and necessary part of the productive educational process.

The explanation for commonality of attitudes may also be a function of the community from which the population was drawn. Spengler (1970), who studied the attitudes of school board members toward vocational education in the state of New York, found that the members from urban school districts had a more positive attitude toward vocational education than those from small cities, town or rural school districts. Though the Denton area studied is characterized as a rural and small city, the general proximity of two major metropolitan centers within commuting distance has more than likely influenced the attitudes to reflect urban concerns. Consequently, the attitudes are commonly held by both groups.

### Conclusions

The characteristics of the two groups differed by age, experience, educational level, and profession. Though the characteristics differed, no statistical difference was found between the two groups with regard to economic, evaluation, responsibility, and role and value attitudes. This finding is supported by the literature (Davita, 1968; Woerdehoff & Bentley, 1969; Wenrich, 1964; Karnes, 1967, and Cavnar, 1967).

Explanations for the lack of difference include that board members were involved in business and industry which can benefit directly from vocational education programs. School administrators, also, were involved in such programs probably to satisfy the demands of business and industry leaders for vocational education programs, and through this aiming to ameliorate their position in the community.

Generally the attitudes of both groups were supportive; for example, they agreed on the need for:

1. Increased funding in vocational education programs
2. Better dissemination of the programs information
3. Local control of the programs
4. Administrators support of the programs
5. Educational policy makers' cooperation
6. Expansion of the curricula
7. More cooperation of business and industry

However, in some ways the attitudes within the groups varied. For example, they were in less agreement with regard to the:

1. Expansion of the programs without an increase in funds.
2. Cost of the programs.
3. Cooperation of small school districts with larger school districts for providing of vocational education programs.

4. The obligation of public schools for providing vocational training for school dropouts.

As suggested, the groups were in general agreement and generally positive: however, there were specific areas between the groups in which there was no clear agreement.

#### Recommendations for Further Studies

The findings and conclusions of this study suggest the following recommendations for further studies:

1. Studies should be conducted to determine community attitudes toward the value of vocational education programs at the secondary level by including parents, business and industry.

2. Research should be conducted to determine the effect of administrators' attitudes concerning various vocational education programs at the secondary level.

3. Research should be conducted to determine the effect of state and local policies affecting vocational education programs at the secondary level.

4. Studies should be conducted at the national level to determine the attitudes of vocational and academic teachers toward vocational education programs at the secondary level.

5. Research should be conducted within counties, states or nationwide to determine the attitudes of vocational and non-vocational students toward vocational education programs at the secondary level.



## CHAPTER VI

# A MODEL FOR CONDUCTING AND UTILIZING ATTITUDINAL STUDIES TOWARD VOCATIONAL EDUCATION PROGRAMS AT THE SECONDARY LEVEL IN AN EMERGING INDUSTRIAL COUNTRY

### Rationale

The image of emerging vocational programs at the secondary level or at any level of education, is frequently viewed in a negative manner for lack of empirical data. Hoyt (1970) and Davita (1969) indicated that the image of emerging vocational education has been perceived by school administrators, board of education members, faculties, and students in a negative manner. Consequently, attitudinal studies toward vocational education programs at the secondary level in an emerging industrial country appears to be necessary in order to determine how educators and non-educators perceive the role and value of such programs, and to utilize this information in formulating this program.

It is assumed that a model is not a real thing, but it serves as the basis for developing the intended purpose of any related matter, subject, or study. Thus, this model is intended to serve as a guideline for those concerned with

vocational education programs at the secondary level in an emerging industrial country and who desire to conduct and utilize attitudinal studies toward such programs.

This suggested model was based on the processes utilized in this study, and a process utilized for evaluation and educational decision-making related to career education programs developed by Young and Russel (1975).

This model enumerates the various phases considered relevant when conducting and utilizing attitudinal studies toward vocational education programs at the secondary level in a developing industrial country or countries (such as Iran) or a developing area of a developed country (such as Denton County, Texas. U.S.A.).

#### Overview of Suggested Phases for the Model

The following phases are suggested for inclusion when developing instruments for conducting and utilizing attitudinal studies toward vocational education at the secondary level in an emerging industrial country, or for developing areas of developed countries.

#### Phase One--Program Definition

This phase presents a relatively brief description of the program and its purpose in education. Emphasis should

be given to problems related to attitudes toward the program under study.

#### Phase Two--Objectives

In this phase identify specific objectives for the study. Include type of information needed, and the purpose for requesting the information.

#### Phase Three--Population Identification

In this phase identify specific groups to be included in the study including size of the population and sampling technique to be used in selecting the subjects.

#### Phase Four--Instrument Development

In this phase, include the following steps:

1. Formulation of demographic information to be requested
2. Formulation of economic factors statements
3. Formulation of evaluation factors statements
4. Formulation of responsibility factors statements
5. Formulation of role and value factors statements
6. Selection of measurement scales to be utilized
7. Validation of the instrument
8. Revision and finalization of the instrument.

#### Phase Five--Data Collection Procedure

In this phase, consider procedures for mailing the instrument to the selected groups to be surveyed, date to mail the instrument, follow-up procedures and time, and conclusive date for the return of the instrument.

#### Phase Six--Analysis of Data

In this phase identify the statistical procedures to analyze the data. Specifically, determine whether inferential and/or descriptive statistics are appropriate to the measurement scales chosen and the type of data provided. The analysis of data should be appropriate to determine differences and/or relationships of the attitudes of the respondents. Additionally, the statistical treatment should provide results determining the significance of the attitudes toward each predetermined factor (economic, evaluation, responsibility, and role and value related to vocational education programs at the secondary level).

#### Phase Seven--Evaluation of Results

In this phase evaluate the results of the study and conclude. Reach from which recommendations are made regarding the utilization of such results.

### Phase Eight--Report Results

In this phase report results of the study and include the conclusions and recommendations to whom ever commissioned the study, such as departments of education, school districts, or other entities which make decisions.

### Phase Nine--Utilization of Results

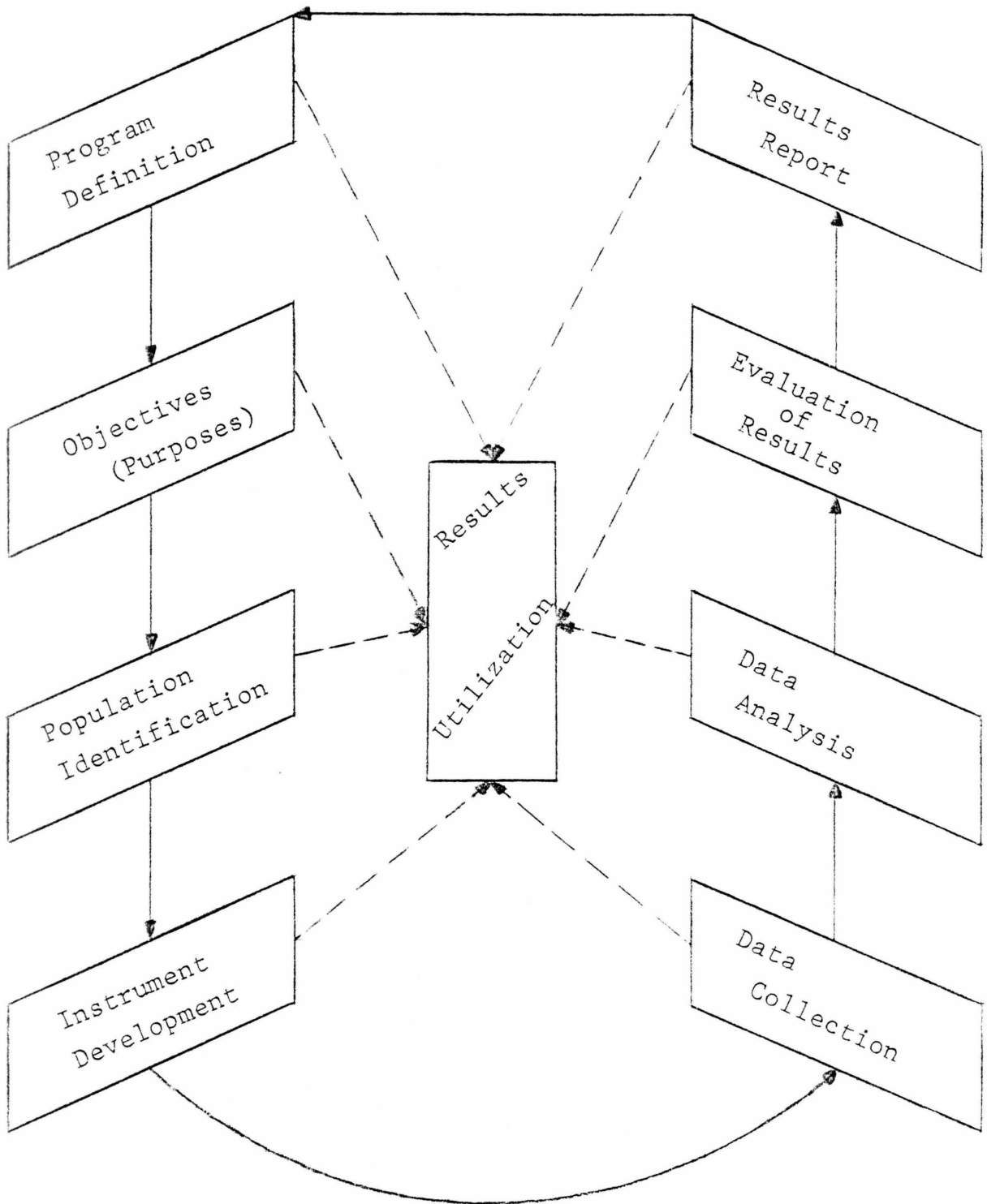
In this phase the results of the study are utilized by those parties or institutions interested in making use of such results, and a work plan to do so is developed.

### Summary of Model

This summary of the model presented on page 70, describes the major and minor entries of the model. The minor entries do not appear in the model for lack of space.

1. Program Definition
  - . Brief Description
  - . Problems
  - . Attitudes Toward
2. Objectives
  - . Target Population
  - . Scope
  - . Purposes

## SUGGESTED MODEL FOR ATTITUDINAL STUDIES



3. Population Identification
  - . Specify Groups
  - . Population Size
  - . Sampling Technique
4. Instrument Development
  - . Demographic Information
  - . Economic Factors Statements
  - . Evaluation Factors Statements
  - . Responsibility Factors Statements
  - . Role and Value Factors Statements
  - . Measurement Scale Selection
  - . Instrument Validation
  - . Instrument Finalization
5. Data Collection
  - . Distribution Procedures
  - . Time Limits
  - . Follow-up Procedures
6. Data Analysis
  - . Statistic Type
  - . Descriptive
  - . Inferential

7. Results Evaluation
  - . Differences
  - . Significances
  - . Conclusions
  - . Recommendations
8. Report Results
  - . Agencies
  - . Districts
  - . School, Etc.
9. Result Utilization
  - . Interested and Concerned Entities

The following information illustrates the model which is presented here.

#### Phase One--Program Definition

1. Brief Description. Determination of definition such as:

Vocational education or technical training or retraining is that phase of education which is given in schools or classes (including field or laboratory practices) under public supervision and control or under contract with a State Education Agency or local education agency, and is conducted as part of a program designed to prepare individuals for gainful employment as semiskilled or skilled workers or technicians in recognized occupations. (Vocational Education Act of 1963, quoted by Calhoun & Finch, 1976, p. 44)



2. Problems. Identification of problem areas, such as:

- . Lack of sufficient funds
- . Lack of support from:
  - 1. School administrators
  - 2. Board of education members
  - 3. Faculty members
  - 4. Parents
  - 5. Students
  - 6. Business and Industry

3. Attitudes (toward vocational education programs).

Identification of attitudinal position held as revealed by such statements as:

The image of vocational education, as perceived by school administrators in our public schools has been very often a negative one, particularly, as applied to the student who is able to do academic work. (Hoyt, 1970)

School administrators and board of education members have rather negative perception of vocational education. (Davita, 1969)

Phase Two--Objectives

1. Target Population.

- . School Administrators to include:
  - 1. School District Superintendents
  - 2. School Peincipals (secondary level)
  - 3. Division Directors
  - 4. Counselors

- . Board of Education Members to include:
    - 1. National Level
    - 2. State Level (according to design)
    - 3. Local Level
  - . Academic and vocational teachers
  - . Academic and vocational students
  - . Business and Industry Representatives
  - . Parents
  - 2. Scope (all counties within a State or Nationwide)
  - 3. Purposes
    - A. To determine the attitudes toward vocational education programs at the secondary level within a State or Nationwide, as perceived by:
      - . Superintendents
      - . Principals
      - . Division Directors
      - . Counselors
      - . Teachers (academic)
      - . Teachers (nonacademic)
      - . Students (academic)
      - . Students (nonacademic)
      - . Business and Industry Representatives
      - . Parents
      - . Board of Education Members
- (National, State, Local--as designed)

- B. To ascertain differences and statistical significance among the attitudes of the individuals surveyed in relation to the four actors of vocational education programs at the secondary level (economic, evaluation, responsibility, and role and value).
- C. To derive conclusions from the results of the study which could provide recommendations to be utilized in either developing, implementing, improving, or evaluating vocational education programs at the secondary level in the intended setting.

### Phase Three--Population Identification

1. Specify Groups. Decision in regard to specific groups to be included in the attitudinal study according to setting for the study (State or National).
2. Population Size. Determination of how many subjects should be selected from each group (allocation).
3. Sampling Technique. Choice of specific sampling technique for selecting the subjects (random, stratification, total, etc.).

Phase Four--Instrument Development1. Demographic Information

- . Sex, age, marital status, ethnic group
- . Occupation, education, experiences

(Sections 2, 3, 4, and 5 which follow are related to the questionnaire as provided in Appendix B.)

2. Economic Factors Statements. Formulation of ten to

20 statements related to economic factors affecting vocational education programs at the secondary level, to include the following areas:

- . Public schools' expenditures on vocational education programs
- . Effectiveness of vocational education programs in proportion to amount of funds available
- . Federal funds always needed because of the cost of vocational education programs
- . Expanding vocational education programs in spite of amount of funds available
- . Setting aside more money for vocational education programs
- . Federal source to be the major provider of vocational education funding

- . Salary of vocational education teachers to be higher than that of non-vocational teachers
  - . Use of local tax monies to buy equipment for vocational education programs
  - . Image of vocational education cost, in terms of money, time, and effort
  - . Funds from small school districts to pay for larger school districts providing vocational education programs for their students.
3. Evaluation Factors Statements. Formulation of ten to twenty statements related to the basis of judgement of vocational education, students, and outcome of programs, to include the following areas:
- . Low intelligence students (image)
  - . Low income families (image)
  - . Failure of schools to meet the needs of the students', their abilities and interests
  - . Academic skills in relation to vocational education programs and students
  - . Impossibility of vocational education programs to provide broad range of training needed for employability

- . Discouraging bright students from entering vocational education programs
  - . Vocational education at the secondary level not necessary for most students
  - . Immaturity of high school students who want to enroll in vocational education programs
  - . Inefficiency of programs to adequately prepare students for the world or work
  - . Interest of students to enroll in vocational education programs at the secondary level
  - . Not enough students being prepared to meet the needs of society by vocational education programs
4. Responsibility Factors Statements. Ten to twenty statements related to responsibility toward vocational education programs at the secondary level to include the following areas:
- . Responsibility of administrators
  - . Responsibility of board members
  - . Responsibility of teachers
  - . Responsibility of students
  - . Responsibility of business and industry
  - . Responsibility of school districts

- . Responsibility of local high schools
  - . Responsibility of federal, state, and local governments
5. Role and Value Factors Statements. Ten to twenty statements related to the role and value factors of vocational education to include the following:
- . Solving employment problems
  - . Preparing students for entry-level occupations
  - . Preparing students for gainful employments
  - . More successful at the secondary level
  - . Value to the students
  - . Value to the school
  - . Value to the community
  - . Value to society
  - . Values being made known to parents
  - . Values for specific occupations
  - . As compared to liberal arts programs
  - . Role and value to trainee and manpower needs
  - . Role and value to business and industry
6. Measurement Scale Selection. Measurement scales which provide nominal or ordinal measures should be chosen to measure the responses of individuals participating in the study. Scales such as those

developed by Likert (1963) and those developed by Thurstone (1959) are recommended. These scales provide measures across five points such as:

- |                          |                        |
|--------------------------|------------------------|
| . Agree or 1             | No importance or 1     |
| . Strongly agree or 2    | Little importance, 2   |
| . Uncertain or 3         | or Minor importance, 3 |
| . Disagree or 4          | Major importance, 4    |
| . Strongly disagree or 5 | Critical importance, 5 |

7. Instrument Validation. After designing the first draft of the instrument to be used, the draft should be submitted to a panel of experts in the field of vocational education and in the field of test and measurement for their analysis and suggestive modifications. Specifically, the following steps could be followed:
  - . Design instrument draft
  - . Panel of experts analysis
  - . Pilot study
  - . Field testing
  
8. Instrument Finalization. Following suggestions provided by the panel of experts and utilizing the results of the pilot study and field testing, the instrument is finally revised and completed.



Phase Five--Data Collection1. Distribution Procedures

- . Mail questionnaires with return envelope to Superintendents' home addresses
- . Mail questionnaires to Principals, Division Directors, and Counselors school addresses
- . Mail questionnaires to Board of Education Members home addresses
- . Mail questionnaires to academic and nonacademic Teachers school addresses
- . Mail questionnaires to business and industry selected persons (representatives) addresses
- . Mail questionnaires to parents addresses
- . Questionnaires to academic and nonacademic students to be distributed at a class setting under supervision of the appointed persons (teachers, counselors, researchers, etc.)

2. Time Limits. Determination of starting date and completion date for the collection of data should be established at this point.3. Follow-up Procedures. Determination of follow-up procedures such as:

- . Mailing a second questionnaire to nonrespondents

- . Calling by telephone when possible
- . Reminding letters where applicable
- . Contacting entity leaders where appropriate

#### Phase Six--Data Analysis

Selecting the appropriate statistical treatment to be used to analyze the data gathered is an important factor at this point. The following information should be helpful:

- . Two samples or groups related (level of measurement)
  - Interval-t test or Welsh test for correlation
  - Ordinal-Wilcoxon Matched Pairs, Signed Rank Test
  - Nominal-McNamar Test for Significance,  $X^2$  (2 x 2)
- . Two independent samples or groups (measurements)
  - Interval-t test, F test (for separate groups)
  - Ordinal-Mann Whitney U Test, Median Test
  - Nominal-Chi-square Test, (two independents)
- . More than two related samples or groups
  - Ordinal-Friedman Two-Way Analysis of Variance
  - Nominal-Cochran Q test
  - Interval-Analysis of Variance (repeated measures)
- . More than two independent samples or groups
  - Ordinal-Kruskal Wallis One-Way Analysis
  - Nominal-Chi-square Test for K independents
  - Interval-Analysis of Variance

To determine relationships of two or more variables the following measures and statistics are recommended:

- . Pearson Product Moment Coefficient of Correlation
- . Spearman Rank Order Correlation Coefficient
- . Contingency Coefficient (nominal)
- . Multiple Regression (interval)
- . Kendall Partial Rank-Correlation (ordinal)
- . Discriminate Analysis (nominal)

#### Phase Seven--Evaluation of Results

Determine differences, significance, and/or no significance as revealed by the statistic utilized. Based on findings, draw conclusions and formulate recommendations.

#### Phase Eight--Reporting the Results

The results of this study are reported to whom it may concern such as educational institutions, state education agencies, school districts, and any other entity concerned.

#### Phase Nine--Utilization of Results

At the accomplishment of any particular phase of the process of the attitudinal study, it assumed that the researcher would utilize the results of that particular segment of the process of the study in the following phase, by providing decision makers with timely, accurate and

necessary information. It is also assumed that the final results of the study would be utilized by the decision makers or any interested party or entity to determine how the participants of the study perceived the role and value of vocational education programs at the specified level of education. It is finally assumed that the results of the study would be utilized to develop, implement, improve, and evaluate vocational education programs at the secondary level in the setting where the study was conducted.

In summary, this model for conducting and utilizing attitudinal studies toward vocational education programs in an emerging industrial country, not only accomplishes part of the purposes of this study, but it also should provide guidelines for conducting such studies in the intended setting.

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## APPENDICES

APPENDIX A

LETTER OF TRANSMITTAL

**Personal information is here. To protect individuals, we have omitted this page. Pagination may be different as a result.**

APPENDIX B

QUESTIONNAIRE

# ATTITUDES TOWARD VOCATIONAL EDUCATION

## PERSONAL INFORMATION

DIRECTIONS: Please check (✓) the appropriate answer(s) and complete the following questions.

- A. What is your sex? 1. Male 2. Female
- B. What is your age? 1. Under 30 2. 31-40 3. 41-50  
4. 51-60 5. 61 and over
- C. What is your ethnic group? 1. Anglo-American  
2. Hispanic  
3. Black  
4. Other \_\_\_\_\_
- D. What educational level have you completed?  
1. High School 4. Masters  
2. Postsecondary 5. Post-Masters  
3. Bachelors 6. Doctorate
- E. What is your present educational position?  
1. Board Member 4. Division Director  
2. Counselor 5. Superintendent  
3. Principal
- F. Have you previously assumed any other position listed above?  
1. Yes 2. No
- G. If you answered yes to the above question, identify the position(s) and period of time.  
1. \_\_\_\_\_ months \_\_\_\_\_ year(s)  
2. \_\_\_\_\_ months \_\_\_\_\_ year(s)
- H. Were you ever enrolled in secondary vocational education?  
1. Yes 2. No
- I. Do you have any other vocational education experiences?  
1. Yes 2. No
- J. If you answered yes to the above question, please identify the experiences. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- K. What type of school district are you currently employed?  
1. Urban (population above 2500).  
2. Rural (population less than 2500).

## QUESTIONNAIRE

## ATTITUDES TOWARD VOCATIONAL EDUCATION

DIRECTION: Please circle the response which best expresses your feelings about each item.

## EXAMPLE:

A liberal education should be required for every student.

☒ SA    A    U    D    SD

SA = Strongly Agree    A = Agree    U = Uncertain or Don't Know    D = Disagree    SD = Strongly Disagree

This person strongly agrees with the item and has indicated by circling the appropriate answer.

Please answer each item. There are no right or wrong answers. When your feelings fall between two choices, select one answer only. Thank you.

Begin here:Circle one answer

- |   |    |   |   |   |    |
|---|----|---|---|---|----|
| 1. Public schools are now spending an adequate amount of money on vocational education programs.            | SA | A | U | D | SD |
| 2. More funds will be needed in order to develop effective vocational education programs.                   | SA | A | U | D | SD |
| 3. Vocational education programs are so expensive that federal aid is always necessary for their operation. | SA | A | U | D | SD |
| 4. Vocational education programs should be expanded even if funds remain the same.                          | SA | A | U | D | SD |
| 5. There should be more money set aside for vocational education.   | SA | A | U | D | SD |

6.	Major funding for vocational education must be provided by federal sources.	SA	A	U	D	SD
7.	The salary of a vocational teacher should exceed that of an academic teacher.	SA	A	U	D	SD
8.	No local tax money should be used to buy equipment for vocational education programs.	SA	A	U	D	SD
9.	Vocational education is too costly in terms of money, time, and effort.	SA	A	U	D	SD
10.	Small school districts should supply funds for their students to attend larger school districts that can support a variety of vocational programs.	SA	A	U	D	SD
11.	Students in vocational education programs are often of low intelligence and come from low income families.	SA	A	U	D	SD
12.	A major cause of dropouts is the failure of the schools to offer vocational programs to meet the needs, interests, and abilities of all students.	SA	A	U	D	SD
13.	The students who take vocational education courses in high school often lack academic skills.	SA	A	U	D	SD
14.	Vocational education programs cannot possibly prepare high school students for the range of job opportunities potentially available to them.	SA	A	U	D	SD
15.	Bright students who are interested in vocational education programs should be discouraged.	SA	A	U	D	SD
16.	Vocational education in high school is not necessary for most students.	SA	A	U	D	SD



17.	High school students who want to take vocational education courses are not mature enough to profit from them.	SA	A	U	D	SD
18.	Present vocational education programs are not effectively preparing students for today's world of work.	SA	A	U	D	SD
19.	Almost all students are interested in receiving some knowledge of vocational education in high school.	SA	A	U	D	SD
20.	Vocational education at the secondary level does not prepare enough students to meet the needs of society..	SA	A	U	D	SD
21.	High schools are assuming enough responsibility for providing vocational education.	SA	A	U	D	SD
22.	The success of local vocational education programs depends largely upon the degree to which administrators encourage and support the programs.	SA	A	U	D	SD
23.	Vocational education programs supported by federal funds are highly subjected to their control.	SA	A	U	D	SD
24.	The cooperation of all policy makers at the secondary school level is necessary in order to develop the best vocational education programs.	SA	A	U	D	SD
25.	Public schools have no obligations for providing school dropouts with training for an occupation.	SA	A	U	D	SD
26.	The public school system should provide a wide variety of vocational education programs at the secondary level to fit the needs and abilities of students not going to college.	SA	A	U	D	SD

27.	Industry is not assuming enough responsibility for providing vocational education.	SA	A	U	D	SD
28.	Local business and industry should provide a major contribution since they benefit from such programs.	SA	A	U	D	SD
29.	Schools and local industries should work more closely together to provide vocational education programs.	SA	A	U	D	SD
30.	The control of vocational education programs should remain basically in the hands of the local authorities.	SA	A	U	D	SD
31.	Vocational education plays a major role in solving unemployment problems.	SA	A	U	D	SD
32.	Vocational education in high school does an adequate job of preparing students for entry level of occupations.	SA	A	U	D	SD
33.	Vocational education programs are more successful at the secondary level than at the post secondary level.	SA	A	U	D	SD
34.	A high school graduate of a vocational education program is highly admired.	SA	A	U	D	SD
35.	Schools are now doing an adequate job of informing the parents of the importance and value of vocational education programs.	SA	A	U	D	SD
36.	Vocational education in high school is unnecessary because students receive on the job training.	SA	A	U	D	SD
37.	The value of vocational education should be made known to more parents than is now the case.	SA	A	U	D	SD

38. The role of vocational education programs at the secondary level should be to prepare students for a specific occupation. SA A U D SD
39. Vocational education is more valuable to students than a liberal education. SA A U D SD
40. Vocational education provides a valuable means of insuring an adequate supply of trained man power. SA A U D SD

THANK YOU FOR YOUR TIME AND COOPERATION.

If you wish to write additional comments, please feel free to do so.

APPENDIX C

DISTRIBUTION OF RAW SCORES

The following pages present the distribution of raw scores derived from the responses of school administrators and board of education members concerning the four categories (economic, evaluation, responsibility, and role and value) contained within the forty items included in the questionnaire.

The responses were negatively and positively stated. Therefore, on the positively stated items, the scoring was as follows: SA=1, A=2, U=3, D=4, and SD=5. Scoring for the negatively stated items was reversed in order to indicate positively. Thus, the negative items scoring was as follows: SA=5, A=4, U=3, D=2, and SD=1. It should be clarified that the items 3, 6, 9, 11 to 18, 20, 23, 25, and 36 were negatively stated. The possible score range for each category was 10 to 50 which includes the response to ten items under each category. The possible total score range was 40 to 200.

## Appendix C

Distribution of Raw Scores of School Administrators  
 Concerning the Four categories (Economic,  
 Evaluation, Responsibility, Role  
 and Value)

<u>Subject</u>	<u>Economic</u>	<u>Evaluation</u>	<u>Responsibility</u>	<u>Role and Value</u>	<u>Sum Total</u>
1	31	22	26	34	113
2	23	19	20	23	85
3	28	25	27	25	105
4	30	30	26	35	121
5	30	25	25	30	110
6	29	22	19	27	97
7	27	26	17	11	81
8	28	24	21	27	100
9	32	21	23	22	98
10	31	17	21	30	99
11	33	30	24	31	118
12	29	28	20	27	104
13	31	20	21	30	102
14	26	22	26	25	99
15	32	18	20	21	91
16	34	31	27	28	122
17	29	15	0	6	50

<u>Subject</u>	<u>Economic</u>	<u>Evaluation</u>	<u>Responsibility</u>	<u>Role and Value</u>	<u>Sum Total</u>
18	30	29	26	24	109
19	22	32	21	26	91
20	31	28	22	27	108
21	31	30	28	36	125
22	27	26	22	27	102
23	32	26	21	26	105
24	31	29	26	32	118
25	32	34	26	22	114
26	35	26	19	20	100
27	26	19	24	26	95
28	28	22	19	22	91
29	24	23	14	24	85
30	23	21	27	14	85
31	31	21	21	27	100
32	32	23	23	29	107
33	30	21	24	28	103
34	30	24	23	25	102
35	31	23	22	23	99
36	30	24	23	25	102
37	34	20	23	27	104
38	28	26	18	26	98
39	32	22	23	38	115
40	32	23	24	31	110

<u>Subject</u>	<u>Economic</u>	<u>Evaluation</u>	<u>Responsibility</u>	<u>Role and Value</u>	<u>Sum Total</u>
41	27	25	24	28	104
42	27	28	29	31	115
43	30	23	23	25	101
44	25	17	20	25	87
45	27	27	24	28	106
46	34	31	25	33	123
47	24	34	31	39	146
48	31	33	34	41	139
49	31	22	28	29	110
50	26	22	14	21	83
51	34	34	25	31	124
52	25	27	26	29	107
53	15	22	22	22	81
54	30	24	26	29	109
55	32	27	25	27	111
56	28	18	23	22	91
57	32	29	25	26	112
58	25	36	27	27	115
59	35	34	25	38	132
60	30	24	28	31	113
61	27	24	22	21	94
62	27	22	22	25	96
63	27	19	15	16	77



APPENDIX D

DISTRIBUTION OF RAW SCORES OF BOARD OF  
EDUCATION MEMBERS

## Appendix D

Distribution of Raw Scores of Board of Education Members  
Concerning the Four Categories (Economic, Evaluation,  
Responsibility, Role and Value)

<u>Subject</u>	<u>Economic</u>	<u>Evaluation</u>	<u>Responsibility</u>	<u>Role and Value</u>	<u>Sum Total</u>
1	28	21	24	31	104
2	28	21	24	31	104
3	27	27	25	29	108
4	27	27	25	29	108
5	28	23	25	27	103
6	28	23	25	27	103
7	33	24	28	34	119
8	33	24	28	34	119
9	26	25	20	26	97
10	26	25	20	26	97
11	30	32	23	23	108
12	30	32	23	23	108
13	36	23	21	32	113
14	37	23	21	32	113
15	28	21	25	28	102
16	28	21	25	28	102
17	32	27	29	33	121

<u>Subject</u>	<u>Economic</u>	<u>Evaluation</u>	<u>Responsibility</u>	<u>Role and Value</u>	<u>Sum Total</u>
18	32	27	29	33	121
19	30	25	22	17	94
20	30	25	22	17	94
21	29	24	24	28	105
22	29	24	24	28	105
23	23	24	27	31	105
24	23	24	27	31	105
25	31	25	21	30	107
26	31	25	21	30	107
27	29	21	25	24	99
28	29	21	25	24	99
29	30	25	25	24	104
30	30	25	25	24	104
31	27	24	23	24	98
32	27	24	23	24	98
33	26	28	17	31	102
34	26	28	17	31	102
35	30	29	21	21	101
36	30	29	21	21	101
37	33	32	23	35	123
38	33	32	23	35	123
39	33	28	28	32	121
40	33	38	38	32	121

<u>Subject</u>	<u>Economic</u>	<u>Evaluation</u>	<u>Responsibility</u>	<u>Role and Value</u>	<u>Sum Total</u>
41	29	27	26	27	109
42	29	27	26	27	109
43	32	22	28	34	116
44	32	22	28	34	116
45	29	23	21	24	97
46	32	25	23	25	105
47	26	26	21	28	101
48	36	28	25	33	122
49	35	28	25	33	121
50	26	24	23	34	107
51	28	30	24	24	106
52	28	30	24	24	106
53	27	24	25	24	100
54	24	26	25	30	106
55	26	20	25	19	90
56	31	26	17	20	94