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I am submitting herewith a dissertation written by Wilma Joyce Ford Bales entitled "The Identification of Potential Leadership Skills Common to and Developed through Vocational Student Organizations." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Vocational-Technical Education.

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THE IDENTIFICATION OF POTENTIAL LEADERSHIP SKILLS COMMON TO AND DEVELOPED THROUGH VOCATIONAL STUDENT ORGANIZATIONS

A Dissertation

Presented for the

Doctor of Education

Degree

The University of Tennessee, Knoxville

Wilma Joyce Ford Bales

March 1979

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ABSTRACT

The study was designed to answer four research questions, the major one being to identify potential leadership skills of vocational student organizations. Other questions were designed to: (1) determine which of the potential leadership skills were common to all vocational student organizations, (2) determine if significant differences existed in perceptions of state advisers and state presidents regarding the opportunities to develop leadership skills, and (3) determine if significant differences existed in the opportunity to develop common potential leadership skills among respondent groups as categorized by VICA, DECA, FBLA, OEA, FHA, and FFA.

A complete census of state advisers and state presidents to vocational student organizations was attempted. A total of 459 state advisers and state presidents from the 48 contiguous states, Alaska, Hawaii, and Washington, D.C. were contacted to participate in the study. The data from 342 usable questionnaires were subjected to various statistical treatments.

The following findings were a result of the analysis and interpretations of the data:

1. The national executive directors of vocational student organizations validated 98 potential leadership skills for vocational student organizations. The survey instrument was composed of those 98 potential leadership skills. The Cronbach Alpha procedure established the reliability of the instrument to be .973.

2. State advisers and state presidents determined that 85 leadership skills were common to the six vocational student organizations based on mean ratings of four or higher on a Likert-type scale which ranged from a low of 1.0 to a high of 6.0.

3. There were 75 significant differences at the .05 level as a result of t test comparisons of the 600 mean scores of state advisers and state presidents in rating the potential leadership skills. Sixty-eight of those differences were rated significantly higher by state presidents in the degree of opportunity to develop those leadership skills. State presidents for FHA and FFA reported 52 of the significantly higher means.

4. Cochran's C test indicated that 53 of the 85 common leadership skills supported the assumption of equal variances significant at the .05 level.

5. The one-way analysis of variance was used to compare the six groups (VICA, DECA, FBLA, OEA, FFA, and FHA) in terms of mean scores on the 53 items which supported the assumption of equal variances. The analysis of variance indicated a significant F ratio at the .05 level for 36 of the items. Scheffé's multiple comparison test was used as follow-up analysis of the data. Respondents for FHA and FFA gave significantly higher mean scores for 21 of the 22 items which indicated significant differences by Scheffé's multiple comparison.

6. The Kruskal-Wallis ANOVA determined significant differences for those 32 items which were lacking in homogeneity of variances. This procedure indicated significant chi-square values for 25 items.

The 25 mean ranks with significant differences based on the Kruskal-Wallis test were further analyzed by the Gibbons' multiple comparison procedure. The Gibbons' multiple comparison procedure indicated 91 significant differences for the 375 comparisons. Sixty-two of the significantly higher values were reported by FHA and FFA respondents.

Five conclusions were presented based on the review of literature, the questionnaire, and the results of statistical analysis. Seven recommendations were offered in view of the findings and conclusions derived from the study. Two selected recommendations are:

1. The leadership skills having a mean score of 5 and above should provide direction for structuring activities within vocational student organizations.

2. Persons responsible for teacher education programs should give consideration to the development of competencies needed by advisers to vocational student organizations.

The discussion of the results of the study provides suggestions regarding possible applications of the study.

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CHAPTER I

THE PROBLEM

I. INTRODUCTION AND BACKGROUND

Vocational student organizations have been in existence for more than fifty years. In 1917 when vocational education programs received federal support under the Smith-Hughes Act, vocational educators had already expressed the need for some type of student organization to supplement the instructional program. These early leaders in vocational education recognized that some of the goals of vocational programs could best be promoted through organizations in which students had primary responsibility. In fact, many local organizations composed of students enrolled in vocational agriculture programs were established prior to 1928 when the Future Farmers of America (FFA)—the first of the vocational student organizations to meet nationally—held a convention in Virginia with representatives from eighteen states.

In the formative years, as well as today, teachers of agriculture served as advisers to those groups and helped students design learning experiences which allowed self-expression and encouraged leadership development. The pattern that developed in agriculture influenced other vocational service areas to also establish vocational student organizations. The various organizations at the local level paved the way for the formation of state vocational student organizations. Eventually, national organizations representative of each of the

vocational service areas were established. Vocational student organizations now exist for all programs that qualify for reimbursement under the provisions of the national vocational education laws and such organizations are considered integral components of the vocational education program (Thompson, 1973).

Vocational student organizations are one resource for expanding the options for students and for providing relevance in education. Mason and Haines (1965) enumerated some of the values of vocational student organizations:

> The youth group activities bring to the student-learner occupational understandings, leadership development, and participation projects as well as social development. (p. 251)

According to the National Advisory Council on Vocational Education (1972), the activities of these vocational student organizations are characterized by "a contagious kind of zest and enthusiasm all too rare in educational endeavors" (p. 4).

Thompson (1973) identified the purposes of vocational student organizations as leadership and character development as well as promotion of scholarship, citizenship, service, and professionalism. Vocational student organizations function to enrich the instructional programs, to extend learning beyond the classroom, to increase student motivation, and to provide students with opportunities for personal development.

Wenrich (1974, pp. 177-78) listed six national vocational student organizations. In addition to listing the same six, the National Advisory Council for Vocational Education (1972) described these vocational student organizations in this manner:

DECA: Distributive Education Clubs of America for students taking marketing, merchandising, and management courses.
FBLA: Future Business Leaders of America is a national organization serving students preparing for careers in business.
FFA: Future Farmers of America for students preparing for careers in agriculture production, processing, supply and service, agricultural mechanics, natural resources and environmental science, horticulture, and forestry.
FHA: Future Homemakers of America for students enrolled in consumer and homemaking and home economics related occupations education.
OEA: Office Education Association for students enrolled in office occupations education.
VICA: Vocational Industrial Clubs of America for students taking trade, industrial, technical, and health education courses. (p. 3)

Although each organization has unique features based on the program goals and objectives of the particular vocational service area, a number of commonalities exist. Couch and Myers (1977) identified the following characteristics as common to all vocational student organizations:

1. All are an integral part of an instructional program in vocational education.
2. All provide learning opportunities.
3. All aid in career choice and preparation.
4. All focus on the development of leadership abilities.
5. All are concerned with citizenship awareness.
6. All promote cooperation and teamwork.
7. All help in the development of communication skills.
8. All include recreation and social activities.
9. All provide opportunities of personal growth, achievement and recognition.
10. All enhance the general public awareness of the values of vocational education. (p. 35)

In spite of these shared characteristics and heritage, there is little evidence to suggest that these organizations have unified in ways that might increase their effectiveness for contemporary youth in America.

II. NEED FOR THE STUDY

Many students in vocational education programs do not participate in the vocational student organizations. The Seventh Report on Vocational Education revealed that of the nine million students enrolled in vocational education programs in the United States approximately 1.5 million students or 16.6 percent are members of vocational student organizations. An examination of the 1975 membership figures by Couch and Myers (1977) indicated that of the 6,459,575 students in vocational education programs at the secondary level, 1,306,745 or 20.2 percent were members of their respective vocational student organizations.

The continuation and expansion of vocational student organizations may well depend on empirical data which will verify the potential benefits these organizations offer vocational students. There is little research to verify what vocational student organizations do contribute, whether it is leadership development or other attributes. In order to determine the potential value of vocational student organizations, there is a need for research to identify the learning opportunities available to individuals through participation in vocational student organizations.

The role of the teacher/coordinator is that of adviser who is charged with the responsibility of guiding the student group. If, in fact, the organizations are working toward common goals and objectives, teacher education programs could view the pre-service and in-service activities of the advisers as a means of promoting unity in vocational education programs.

The low enrollments in the organizations may be a reflection of the lack of attention that teachers get in their pre-service and in-service programs about the merits of vocational student organizations. It could also mean that teachers are not adequately prepared to assume the role of adviser to a vocational student organization. In either case, research which more clearly delineates the contributions of vocational organizations may provide a base for further promotion of membership in these organizations.

III. THE PROBLEM

Very little research has been done in the area of vocational student organizations. If they really do contribute to leadership development, research should substantiate the findings and indicate the contributions that they make. According to the enrollment figures, membership percentages are less than desirable.

If vocational student organizations are capable of making a difference in the lives of student members, data should be gathered which in turn can support efforts directed at increasing membership. The final outcome then would be that more students would be reached and provided with meaningful, learning opportunities.

If it is determined that vocational student organizations are not making valuable contributions to students, such determination could be used to gradually reduce the time and effort that is spent on such organizations or to encourage necessary changes that will make them effective as instructional activities.

Through the identification of the potential leadership skills of vocational student organizations, it will be possible to determine the potential leadership contributions which are common to and developed through vocational student organizations. Data will be available to help determine whether or not vocational student organizations should be included in the instructional programs of the school.

IV. QUESTIONS OF THE STUDY

In an effort to identify the potential leadership skills common to and developed through participation in vocational student organizations, data were collected to answer the following questions:

1. What are the potential leadership skills developed through participation in vocational student organizations?

2. Which of the potential leadership skills are common to all vocational student organizations?

3. Are there significant differences between the perceptions of the state advisers and the state presidents within each of the vocational student organizations regarding the opportunity to develop the identified leadership skills through participation in that organization?

4. Are there significant differences in the opportunity to develop common potential leadership skills between the various student organizations?

V. ASSUMPTIONS

1. A jury of experts can be effectively utilized to identify potential leadership skills of vocational student organizations.

2. State advisers of the vocational student organizations are capable of determining which leadership skills may be developed through participation in the vocational student organizations they represent.

3. Elected state presidents of the vocational student organizations are capable of determining which leadership skills may be developed through participation in the vocational student organizations they represent.

4. All vocational student organizations do contribute to the development of leadership skills.

VI. SCOPE AND LIMITATIONS

This study was limited to the perception of state advisers and state presidents of the following secondary, vocational student organizations: FFA, FHA, DECA, FBLA, OEA, and VICA. Due to the short history of the Health Occupations Student Association (HOSA) which was established in 1976, it was not included in the study. A complete enumeration of state advisers and state presidents of all vocational student organizations in all fifty states and Washington, D. C. was attempted. The study deals only with secondary vocational student organizations and excludes aspects of the collegiate, postsecondary, and alumni chapter activities.

VII. DEFINITION OF TERMS

The following terms are used throughout the study and are defined here for clarification.

Jury of Experts is a selected group of vocational education leaders qualified as being knowledgeable about the types of opportunities available through various student organizations.

Vocational Student Organization is an organization oriented to a specific vocational education service area with the activities of the organization being integrated into the instructional program. The various vocational student organizations are defined as follows:

The Distributive Education Clubs of America (DECA) is composed of students enrolled in cooperative classes in vocational distributive education (Thompson, 1973).

The Future Business Leaders of America (FBLA) is the vocational student organization for students enrolled in business subjects (Thompson, 1973).

The Future Farmers of America (FFA) is associated with high school vocational agriculture programs and is the oldest of the vocational student organizations (Thompson, 1973).

The Future Homemakers of America (FHA) is the student organization associated with vocational home economics programs (Thompson, 1973).

The Office Education Association (OEA) was formed to serve all business and office education students (King, 1976).

The Vocational Industrial Clubs of America (VICA) is designed for students enrolled in trade and industrial programs (Thompson, 1973).

VIII. ORGANIZATION OF THE STUDY

Chapter I contains the introduction and background, the problem, the purpose of the study, questions of the study, assumptions, scope and limitations, definition of terms, and the organization of the study.

Chapter II reviews literature related to vocational student organizations and research related to specific vocational student organizations and studies which support the inclusion of vocational student organizations.

Chapter III describes and discusses the procedures used in developing the instrument for the study, collecting the data, and statistical methods used in the analysis of the data.

Chapter IV is the presentation of data and the findings of the study.

Chapter V contains a summary, conclusions, and recommendations based on the study.

CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

I. INTRODUCTION

An examination of the history and goals of the various vocational student organizations was a prequisite to conducting the research dealing with the potential leadership skills of these organizations. Information was gained through an in-depth review of the existing literature, relevant doctoral dissertations, national studies, journal articles, and other publications. This latter included a review of the handbook of each vocational student organization.

A computerized search of Educational Resources Information Center (ERIC), Research in Education (RIE), and Current Index to Journals in Education (CIJE) was used for the initial literature review. The researcher also completed a comprehensive manual search of Dissertation Abstracts International and Abstracts of Research Materials (ARM). A review of other pertinent periodical literature, textbooks, and literature published by the National Advisory Council for Vocational Education and the American Vocational Association was completed.

II. THE DEVELOPMENT OF VOCATIONAL STUDENT ORGANIZATIONS

The Future Farmers of America

The Future Farmers of America (FFA) is the oldest and largest of the vocational student organizations. It was organized in 1928 and

was chartered by the U. S. Congress in 1950. Today the FFA is sponsored by the Agriculture/U. S. Agribusiness and Natural Resources Staff of the Division of Vocational and Technical Education, United States Department of Education. In 1965, in response to civil rights legislation, the Future Farmers of America absorbed the New Farmers of America, which had previously served black students.

The Future Farmers of America is an educational, nonprofit, nonpolitical youth organization. According to the FFA Advisor's Handbook, the organization provides learning experiences and personal development opportunities by challenging members in a program of leadership activities which supplement classroom instruction by encouraging the practical application of agriculture course work and by providing incentives for agricultural achievement. Its main objectives are to help develop qualities of leadership, character, scholarship, cooperation, and citizenship in its members.

Future Business Leaders of America

The first chapter of the Future Business Leaders of America (FBLA) for secondary students was organized in 1942 at Johnson City, Tennessee. When the National Council for Business Education and the National Business Education Association merged in 1946 to form the United Business Education Association (UBEA), the sponsorship of the FBLA together with its postsecondary counterpart Phi Beta Lambda (PBL) was assumed by the UBEA. In 1962 the UBEA changed its name to the National Business Education Association.

FBLA is designed for high school students enrolled in business departments preparing for business and office careers. The FBLA-PBL became an independent corporation in 1969.

Future Homemakers of America

Future Homemakers of America (FHA) was founded in Chicago on June 11, 1945. In 1965, the FHA merged with the New Homemakers of America, a similar organization of Negro home economics students. FHA is a nonprofit organization for home economics students in public and nonpublic junior and senior high schools. The FHA is supported entirely by membership dues.

The objective of FHA is to help youth assume their roles in society through home economics education in areas of personal growth, family life, vocational preparation, and community involvement. The FHA's four-year national program of work provides guidelines to help individual chapters enrich home economics programs. The objectives of the program are to help members recognize and develop their abilities and to stimulate members to participate actively in projects for family, community, and world improvement. There are two types of chapters, FHA and HERO. FHA chapters are a part of the consumer and homemaking program. It places emphasis on consumer education, homemaking and family life education combined with the exploration of jobs and careers. Home Economics Related Occupations (HERO) chapters place major emphasis on preparation for jobs and career with recognition that workers also fill multiple roles as homemakers, employees, and community leaders.

FHA is sponsored by the United States Office of Education through the Home Economic Education program and the American Home Economic Association.

Distributive Education Clubs of America

Distributive Education Clubs of America (DECA) organized in 1948, is the national organization operating through the schools for students who are enrolled in distributive education programs and through these programs are preparing for full-time occupations in the field of marketing, distribution, and management. DECA's three major goals are to assist state associations in their growth and development; to develop respect for education in marketing and distribution which will, in turn, contribute to occupational competence; and to promote understanding of the responsibilities of citizenship in a free and competitive enterprise system.

DECA is open to high school juniors and seniors interested in a field of distribution as a vocation. Opportunities for group and individual participation exist through committee activities, projects, and contests. Leadership development activities exist for students through committee responsibilities, various competitive events, and election of officers (Mason and Haines, 1956).

DECA is governed by a board of directors made up of 11 state supervisors of distributive education and an appointed representative of the United States Department of Health, Education and Welfare. DECA, Incorporated is composed of the head state supervisors of distributive education of the states and territories of the United States. Three directors from the membership of DECA, Incorporated are elected each year for three-year terms.

Vocational Industrial Clubs of America

Vocational Industrial Clubs of America (VICA) is the student organization for learners in the trade, industrial, technical and health occupations program in secondary vocational education programs. The Future Craftsmen of America, established in the 1930's, was the forerunner of VICA.

Organized by a representative group of state club sponsors and the National Association of State Supervisors of Trade and Industrial Education in Nashville, Tennessee, in May 1965, VICA was designed to encourage students to enter the field of industrial education as teachers; to promote high standards of workmanship, scholarship, and trade ethics; to develop students' leadership abilities and sense of civic responsibility; to promote industrial safety; and to encourage cooperation of students, teachers, community leaders, labor and business. Initial financial support for VICA came from vocational industrial youth groups in 14 states, from the Future Farmers of America, and from the American Vocational Association.

The first annual meeting in Nashville was attended by more than 200 student advisers and representatives of labor and industry. According to the VICA Leadership Handbook, the organization has as its basic premise the development of student leadership qualities, industrial and technical skills, and the promotion of the dignity of work.

VICA is governed by an administrative board of representatives from state and territorial associations, the United States Office of Education, and the American Vocational Association. The national VICA

program is supported primarily by annual dues and by the Youth Development Foundation of VICA. The foundation solicits financial support from industry and labor for the development and administration of its programs.

Office Education Association

The youngest of the vocational student organizations in this study is the Office of Education (OEA) which was organized in 1966. According to the OEA Handbook, the organization is the official vocational student organization for students enrolled in vocational office education programs. The organization is designed to develop leadership abilities, interest in the American business system, and competency in office occupations within the framework of vocational education.

The national organization is comprised of state associations. Each OEA division has elected national officers who make up the National Executive Council. Overall control of OEA lies with OEA, Incorporated, its legal sponsoring group which consists of representatives from various divisions within each of the chartered states. OEA, Incorporated provides administrative control through a Board of Directors composed of representatives from all facets of business and office occupations. The national staff provides services to state associations, local chapters, and individual members from its headquarters in Columbus, Ohio.

Secondary membership in OEA is open to any high school student who is presently enrolled in a vocational program of business and office skills.

III. ADVOCATES OF STUDENT ORGANIZATIONS

Leadership, motivation, and attitudes, as well as interpersonal relationships are important contributions of all vocational student organizations (Ohio State University, 1971). The organizations provide members with general education experiences as well as learning experiences related to a specific occupation. More importantly, the vocational student organizations are an effort to go beyond the classroom. Recognizing that students need more than occupational skills and related knowledge to function in a working role, Johnson (1971) referred to the vocational student organizations as a vital force in the instructional program.

Venn (1967) has added that in past years education for the majority of people did not always relate to their life's work, and perhaps it did not need to. He indicated, in view of modern complexity, the need today is for education to be directly related to the individual's future work role. Education must function as the bridge between each person and world of work.

In support of Venn's philosophy, career guidance and exposure can be gained through the vocational student organizations. Vocational education has always been concerned with helping youth select and prepare for careers (Brown, 1971). According to Marland (1971), the vocational student organizations have always held as a high priority the goal of preparing people for careers. He supported the vocational student organizations as a valuable means of strengthening programs of

vocational and teacher education. He suggested that other fields of career education use the curriculum-oriented approach of vocational student organization as a model.

Krotz (1977), speaking at an EPDA Seminar at the University of Tennessee, advocated the development and continued use of vocational student organizations. She stated:

> Our vocational student organizations can and should be one of the most important and dynamic phases of vocational education. . . . attend some state or national meeting. They are an inspiration. These young people see themselves as the leaders of tomorrow and they are well-equipped to be. They excel in their particular field, compete against each other in competitive events, vie for offices, receive leadership training, explore future potential opportunities, and are thoroughly motivated. And yet we adults are letting them down, it was only after much lobbying that they were mentioned in Public Law 98-482. Many state plans ignore them completely, and many local education agencies offer no funding for them. Vocational education teachers often receive no extra pay for the time spent with student organizations. Teacher training institutions tend not to stress their importance and the personal satisfaction which can be derived from working with young people on this basis.
>
> In many schools the students are pleading for a vocational education organization but no faculty member can be found to act as club adviser. If we really believe in well-motivated vocational education students who understand private enterprise and are anxious to succeed and be leaders in their field, we must find a way to fill this need.

Claudia Zent (1971, p. 47), referred to FHA as "an avenue to new ideas, different people, success, and failure in every aspect of life." She contributed her gains in self-confidence and poise to FHA activities.

Bobbie Hentschel, 1970 Illinois State VICA President, listed the opportunities to learn about "the world of work, about other people, other places, and about herself" among the benefits of membership in VICA.

Bruce Stokes, 1971 National DECA Vice President, felt that DECA really gave purpose to his life. While learning leadership skills through DECA activities, he also learned to think more creatively, to give of himself, and to participate as a follower as well as a leader.

Terry Williams, 1971 chapter officer and member, credited FFA with his staying enrolled in school. He attributed the organization with helping him find an interest in life and an enjoyable occupation. He added that he had learned "to get along with people, to speak before groups, and to be a leader in the local FFA chapter" (p. 46).

A former FBLA president, Junette Pinkney (1971), cited FBLA as the most effective aide in developing her leadership ability and increasing her knowledge of the business world. She indicated that the FBLA functions "to develop the individual member's potential talents" (p. 46).

A former Ohio OEA President, James Kammer (1971), credited OEA with helping him gain self-confidence, develop leadership abilities, and earn state and national recognition. He indicated plans to become a vocational business and office education teacher and adviser to an OEA chapter.

Arnold (1970), in a study at East Texas State University, concluded that student-teachers in agriculture should have opportunities to participate in FFA activities by student teaching in a center that placed emphasis on the FFA organization.

Lasap (1971) attempted to determine the effects of selected factors on the leadership attitudes of former national FFA officers. His

respondents indicated that they perceived the FFA objectives concerning leadership development and fostering of citizenship and patriotism to have contributed most significantly to their development as individuals. A majority of the respondents served as presidents at some level in the organization prior to their election to national office. Most of the respondents served as presidents and vice presidents at all levels of the organization and averaged six years of active membership in FFA. He revealed that a majority of those former vocational agriculture students enrolled in college level agricultural education as their major field. Most of the respondents completed requirements for B.S. degrees and a number held master's degrees, and a few had completed doctoral degrees.

Lawhead (1963) identified five definite benefits of peer involvement: (1) developing recognition of the rights of others, (2) screening as a control of behavior, (3) giving security at a needed stage of development, (4) providing a source of cultural identification, and (5) determining personality roles. As a result of his studies, he hypothesized that the use of organized student activities as an integral part of the total education program would appear highly meritorious in meeting the growth and development needs of adolescents.

Hilgard (1956) suggested that a motivated learner operating under the control of rewards is not superior to a learner processing basic, intrinsic motivation with himself/herself; however, the desire to gain rewards and recognition does produce a more interested student who learns more readily than an unmotivated learner. Also, the use of

problem-solving and creative learning techniques are preferable to rote learning because they place greater emphasis upon integration of theory with practice. The student must also bring prior knowledge and experience to bear on the solution of the current problems which are a part of the activities of vocational student organizations.

Bishop (1955) reported a positive relationship between participation in extracurricular activities and higher scores on the California Test on Personality. Students who were active in student activities ranked higher on the six traits of trustworthy, resourceful, leadership, disposition, independence, and enthusiasm.

Thompson (1973) emphasized that many goals of vocational education could best be attained through youth organizations in which students assume primary responsibility for planning activities.

Barlow (1974) pointed out that early supporters viewed vocational education opportunities as avenues to develop the leadership potential of individuals. He further indicated that good citizenship has always been a part of the rationale for vocational education.

Bice (1977) indicated that vocational educators believe in vocational youth organizations as the proper place for youth "to develop leadership skills and to allow leadership to bud and flower" (p. 104). He added that it was not the need for leadership that caused the development of such organizations but that leadership development was the result of vocational student organizations.

Bice contended that contributions of vocational student organizations in providing opportunities for leadership development can be supported

by the number of successful community leaders who are practicing those skills that they developed as members of vocational student organizations. He pointed out that James B. Hunt, Jr. at age 39 became Governor of North Carolina with the largest popular vote in the history of the state. Hunt contributed his success to the learning experiences he had through the FFA organization.

In a survey of 66 business teachers, Bainbridge (1950) found that the students of those teachers who encouraged participation in the vocational student organizations were helping students develop social skills as well as vocational skills. They were acquiring knowledge and experiences which would help them adjust to the business environment and to life in general.

Karlin and Berger (1971) supported the utilization of student organizations in school programs. Young people need desperately to feel they are members of a group because the group provides a sense of peer acceptance, personal security, and a means of obtaining skills and knowledge. Coyle (1947) suggested that peer groups assist teenagers by filling several needs including the needs to develop maturity, to come to terms with authority, and to relate one's self to a larger whole.

IV. ADEQUACY OF INVOLVEMENT

In the annual reports of membership information, it is apparent that there is more need for student involvement in vocational student organizations. Rumpf (1972) reported that of the more than five million

students enrolled in vocational education programs in secondary schools, slightly over one million were members of their respective vocational student organizations. He commented that the large membership potential has hardly been tapped.

The National Advisory Council on Vocational Education (1972) indicated that classroom teachers must have the support of school administrators if they are to reach the vast potential of vocational student organizations. In the report on vocational student organizations, the National Council Report (1972, p. 4) stated in part: "We must provide—at every level—a welcoming climate in which these vital organizations can grow to their full height. They must be given every reinforcement."

V. LEADERSHIP DEVELOPMENT

The majority purpose of a vocational student organization is to develop the leadership potential of each member (Ohio State University, 1976). Through the activities of vocational student organizations, the student will be given the opportunities to fulfill leadership roles, to learn leadership skills, and to improve his/her self-image.

Each vocational student organization lists among its purposes the provision for students to discover and engage in leadership experiences. Activities, designed to assist student members in developing to their full leadership potential, are built into every vocational student organization. The development of competent, aggressive leadership has been identified as a common aim of vocational student organizations (Johnson, 1971).

Lowell Burkett (1971) supported vocational student organizations as integral parts of the vocational education instruction. He cited the greatest value of vocational student organizations as that of helping youth develop leadership qualities as well as civic responsibilities.

Several opportunities exist at the various levels for leadership development. All vocational student organizations are national in scope, and annual meetings are held at both the state and national levels. Local chapters are represented at county or district meetings. Chapters send representatives to state meetings, and the state officers usually represent the state organizations at the national conference. Those chapters who have exhibited outstanding performance in leadership development, officer training, and chapter accomplishments increase their chances for state and national recognition.

Haven (1976) defined leadership as the activity of influencing people to cooperate toward some desirable goal. Accordingly, leadership is the ability to guide, inspire, and help others at every level of responsibility to develop their capabilities. He explained that leadership does not exist alone but as a function of relationships and situations. He said that leadership includes the ability to identify goals, to respect the opinions of others, to share in planning, to recognize others' abilities, to plan and organize, and to attract and keep followers.

The handbooks of the vocational student organizations refer to the ability to communicate as a base on which to build and develop other

leadership skills. All vocational students incorporate training in improved communications in speaking, writing, and interpersonal skills. These skills are important to members performing as leaders in vocational student organizations as well as aiding their advancement in their chosen fields later in life. The DECA Handbook points out that leadership and fellowship are closely interwoven and both are essential to the students' success in the marketing enterprise.

The motto of VICA is "Preparing for Leadership in a World of Work." Through educational, vocational, civic, recreational, and social activities, VICA provides leadership training in a multitude of areas (VICA Handbook, 1976).

The Professional Vocational Teacher Education Module (1976), H-3 developed by The Center for Vocational Education at The Ohio State University listed some of the characteristics of effective leaders:

- understands the principles of democracy
- respects the rights and dignity of others
- realizes that every person can make a contribution
- understands himself/herself
- accepts responsibilities
- does his/her part through work with the group
- gets along with people in a friendly manner
- is industrious
- praises individuals when praise is due
- is sensitive to basic trends and moods of the group
- is able to communicate thoughts and feelings in a clear and understandable manner
- is able to verbalize the ideas of the group
- is well-informed on matters that concern the group
- arrives at decisions only after securing and studying pertinent information
- has confidence in his/her developed abilities
- shows trust for fellow group members
- is optimistic
- believes that group action can overcome obstacles and solve problems

- works within the group with zest and enjoyment
- is open minded
- does not claim to have all the answers
- seeks the opinion of others
- supports the ideas of others if it is best for the group
- is willing to compromise on issues
- has strength of conviction
- will take a "stand" and be counted
- can be convinced to take another view if the evidence indicates the view held to be wrong
- shows initiative in getting a group started
- plans carefully to initiate action
- proceeds in group discussion with knowhow rather than with reckless abandon
- is public spirited
- desires and works for those things that benefit the group
- expresses facts or offers possible solutions when participating (pp. 13-15)

VI. CO-CURRICULAR DESIGN

It is essential for educators to have knowledge about the effective use of vocational student organizations. Classroom instructors are better able to provide more realistic and meaningful education for individuals in their instructional programs when vocational student organizations are an integral part of the program. In the Seventh Report on Vocational Education (1972), the National Advisory Council for Vocational Education emphasized the importance of vocational student organizations:

> The work of these organizations is integral to career education. They are by no means frivolous and optional extracurricular activity. Students are deeply involved at every stage. The organizations provide an indispensable emphasis on career and civic awareness, social competence and leadership ability. Few who have witnessed the work of these organizations firsthand question their value as essential instruments in career education. (p. 5)

Rumpf (1972) also supported the position that student organizations are an integral part of the instructional program. Educators appear to be in agreement that there is a definite need for vocational student organizations to be a part of the educational process. Although vocational student organizations and programs may vary, all of them are co-curricular.

Wenrich (1974) referred to the vocational student organization as an integral part of the vocational curriculum, not an extracurricular activity. He pointed out that the vocational student organization can be a powerful influence in bringing the world of work and the school into a closer working relationship which results in more realistic vocational instruction. Furthermore, he emphasized the activities available within the vocational student organization as an avenue for students to become better decision-makers and problem-solvers.

King (1976) indicated that as the OEA local chapter integrates its program of work into the classroom setting, occupational competency should be the primary goal. In a like manner, VICA is designed to complement vocational education instruction as a co-curricular activity. VICA activities directed toward the development of character, citizenship, and leadership make education and training more meaningful (Johnson, 1967). Through the opportunities to participate in interorganization and interstate activites, VICA is credited with broadening the student's perspective of the career field. Johnson pointed out that co-curricular experiences make contributions in improving students' grades and keeping many students in school.

FHA, according to Reel (1976), is viewed as another teaching method. She indicated great emphasis on youth-planned and youth-directed activites which enrich and supplement classroom experiences by reaching beyond the classroom into the home and community.

DECA chapter activities have been recognized as part of the total educational program because of their development of leadership ability, professional attitudes, better citizenship characteristics, and social growth of the individual (American Vocational Journal, 1971). DECA activities serve the teacher-coordinator as a teaching tool by creating interest in all phases of marketing and distribution.

The FFA Advisors Handbook (1975) describes the organization as an integral part of the high school vocational agriculture program. It indicates that FFA activities supplement classroom instruction by encouraging the practical application of classroom instruction and by providing incentives for agricultural achievement.

FBLA is described as a builder of business leadership. Furthermore, it is also designed to be an extension of the instructional program and thus an integral part of the business curriculum as members learn to engage in individual and group business enterprises (American Vocational Journal, 1971).

Vocational student organizations tend to provide excellent laboratory environments in which students may observe and participate in their educational experiences (McClure, 1975). He indicated that the vocational student organization becomes synonymous with the vocational area it represents and gives identity, prestige, and importance to the total program.

The curriculum-oriented approach of the vocational student organizations helps young people to find meaning and purpose in their school work. Former Commissioner of Education, Sidney P. Marland, Jr., (1971) indicated that vocational student organizations strengthen the quality of vocational education and assist in the development of a well-rounded person.

The United States Senate Committee on Labor and Public Welfare (1968) reviewed the development of organizations composed of students enrolled in various educational programs and reported that from the very beginning these youth programs have been perceived as integral parts of the instructional program in vocational education. In their final report, they praised these groups by referring to them as excellent supplements to the regular classroom instruction. They indicated that the student organizations offer opportunities for personal development, for training and experience in leadership, and for using initiative and enthusiasm in promoting vocational education.

VII. THE ADVISER

The strength of a vocational student organization can be traced to the adviser. The structure of vocational student organizations is a factor which contributes to the lack of a generation gap within the chapter. Advisers are recognized as vital for the guidance they give to the local group. The program planning and the year's activities remain the responsibility of chapter members.

FHA chapters bring a free atmosphere for interchange between adviser and members as they create learning experiences. FHA has

designed a Program Action Impact Kit which contains a guide that allows members and adviser to discover chapter concerns and develop a step-by-step plan of action.

VICA activities are a part of the total trade, technical, and industrial education program. The educator must go beyond skill development to help the student foster the traits of citizenship and leadership (Johnson, 1971). The adult adviser works cooperatively with members to help them develop their abilities so that they may contribute to themselves, their families, and to society.

When Kentucky received its State VICA charter in 1968, the state leaders in trade and industrial education made a commitment to educate professional workers to their responsibilities and roles as advisers to VICA (Martin and Byers, 1971). They designed a program to help teachers recognize VICA as a viable part of their total instructional program, as an aid to increase motivation and learning, and as a challenge to develop leadership and cooperation among VICA members.

In a recent article, the DECA adviser is described as an alive, alert, sensitive teacher. The adviser must believe in herself/himself and the young people she/he is teaching. If a teacher has an inactive DECA chapter, it is because he/she has not realized the potential of the vocational student organization as a motivational tool (American Vocational Journal, 1971).

The adviser is the major determinant of an effective student organization. He/she gives guidance and direction to the activities of the organization. Preparation of vocational teachers to serve as

advisers to vocational student organizations should be the joint effort of teacher educators and State department supervisors (Byers, 1976).

Pre-service preparation should be provided to prospective vocational education teachers in the history, functions, purposes, philosophy, methods, techniques, organization, and administration of vocational student organizations. Student teaching programs should include experiences in working with student organizations (Byers, 1976).

VIII. DEGREE, AWARD, AND/OR RECOGNITION PROGRAMS

Student members of vocational student organizations are encouraged to develop goals and plans for advancing within the vocational student organization. Each student organization's official handbook, along with related materials, describe the requirements of the degree, award, and/or recognition program within the organization.

These programs are one method for student members to develop their leadership abilities as they participate in the local chapter, community, regional, state, and national activities. All members are encouraged to become involved in these activities. The extent of involvement and the degree of achievement or recognition level attained is left to the student member.

According to the student handbooks of the organizations, appropriate forms or documents are filed as the student completes the requirements for the various levels of achievement. The first levels are usually attainable by most members within the organization. The higher degrees or levels of achievement require more effort and service projects may be specified.

DECA

It is through DECA that distributive education students have the greatest opportunity to develop leadership and organizational ability (American Vocational Journal, 1971). Through the contests and awards program, class members have an opportunity to compete with others in using what they have learned in the instructional program.

The contest program conducted by DECA sets up real-life situations and provides learning experiences that cannot be simulated in the classroom. The awards and contests often involve business leaders and their co-workers.

The element of competition introduced in the DECA awards and contests programs serves as an effective technique in stimulating the desire to learn (Arnold, 1964). Because of the member's desire to prepare and present an acceptable manual in competition with his fellow students, he or she has been motivated in his or her search for knowledge. Merchants become aware of the training potentiality for students participating in the DECA contests.

Contests assist to instill good work habits in students. Arnold (1964) indicated that the DECA contests are commended by merchants because they provide the incentive, recognition and learning experiences which are characteristics of a successful employee.

VICA

Competitive events are also included in the VICA Youth Development Program (Leadership Handbook, 1965). They are designed to motivate and

to develop enthusiasm for learning. Opportunities are provided to help youth to achieve a sense of accomplishment and recognition for skills and abilities. The student's poise and skill in handling a variety of situations are indications that she/he has the ability to handle himself/herself in social and business situations (Johnson, 1967).

The VICA organization has developed a publication, Competitive Activities (1975), which has information on presentations and performance standards. These activities are practical and valuable experiences for students entering industrial careers. In the Skill Olympics, students pit skill and knowledge against others in regional, state, national and even international competition. The importance of achievement programs is that they are effective teaching tools as well as motivational devices for students.

FFA

The FFA program was updated in the early seventies to make it more relevant to classroom instruction. The awards program revision was a division of the proficiency program into the seven basic instructional areas in agriculture as identified by the United States Office of Education. As a result, the FFA program now offers 15 occupational proficiency awards closely related to the instructional program (American Vocational Journal, September 1971).

FFA members report activities related to their occupational experience. In an effort to make the awards program a worthwhile experience, each award area has a separate application form with

questions correlated with the instructional program (FFA Advisor's Handbook, 1976). In addition to occupational competency, applications stress participation in leadership development and community service activities.

The contest and awards program of the FFA organization utilize the student motivation theory. The use of organized student activities as an integral part of the total vocational education program appears highly desirable in meeting the growth and development needs of adolescents. The vocational student's education will not be complete unless he/she is active in the local vocational student organization activities. The activities focus on the complementary needs of people in the areas of skill, knowledge, and attitude development. Therefore, the vocational student organization functions as the heart of the vocational education program.

OEA

Outstanding members of OEA have an opportunity to participate in a Business Career Development Program (OEA Handbook, 1976). This program consists of competitive events based on an evaluation of the member's contributions to good citizenship, dependability and responsibility, leadership qualities, ability to get along with others, basic communication skills, general business skills, awareness of current events, good grooming, work experience, and honor and awards (Nance, 1976).

A part of the OEA awards program includes opportunities for competition with others and self. Nance (1976) indicated that the

development of goals for the OEA awards program include professional growth activities, opportunities for leadership development, and personal growth activities in the areas of poise, attitudes, and sociability.

FHA

FHA emphasizes personal growth and the individual's desire to work toward change rather than toward a symbol of recognition, award, or a status (Reel, 1976). The Encounter Growth Program centers around individual growth and development. It takes the place of degrees and is an attempt to provide greater flexibility and encourage individuality. The process is divided into four main sections: (1) exploration of self, (2) determination of personal growth goals, (3) organization of one's plan, and (4) formation of commitment (To Guide You in FHA-HERO, 1976). Students are encouraged to analyze themselves and set personal goals.

FHA is not a competitive organization. It adheres to the premise that there is more interest and greater individual growth when boys and girls help plan and direct projects and activities which center around their own needs and concerns. FHA recognizes that its continued growth will be dependent on youth involvement in the planning and decision-making process (American Vocational Journal, September 1971).

FBLA

According to a journal article, (American Vocational Journal, 1971) all FBLA chapters stress the encouragement of scholarship and high

standards for entering business by active participation in the National Business Entrance Tests. Members participate in workshops on parliamentary procedure before proceeding to additional workshops on public speaking.

Annual competition in FBLA includes the selection of Mr. and Miss Future Business Leader of America as a part of the National Leadership Conference. To become eligible for this event, students are taught to complete job applications, prepare for preemployment tests, and participate in an interview with a business executive. If a student is selected to represent the local chapter, she/he goes through the same procedure on the district level. If he/she is chosen as district, winner, she/he participates on the state level. One candidate is eventually chosen to represent each state at the National Leadership Conference.

IX. INSTRUMENT DEVELOPMENT AND CONTENT VALIDATION

Introduction

The degree of success in any research effort is dependent on the design of the data collection instrument. The researcher must be able to base conclusions and generalizations on valid, reliable, and useful data gathered on a properly designed instrument. The essential design qualities which should be incorporated into any data collection instrument include reliability, validity, and usability. The data collection tool should readily yield consistent information at a minimum of expense.

According to Stanley (1964), the survey instrument should have consistency and stability of measurement, referred to as reliability, usefulness for a given purpose or validity, and practicality or usability. An instrument is valid if it yields information that the researcher needs to accomplish his purpose. Therefore, the instrument must actually measure those aspects for which it is designed.

Validity

There are several types of validity that may be part of an instrument including predictive validity, substitutive or concurrent validity, content validity, and construct validity. Usually recognized as the most important is content validity which is also referred to as "face validity."

In order to establish content validity, the instrument constructor prepares an instrument representative of the various areas of the factor he wishes to appraise. The designer solicits the assistance of others to evaluate the extent to which the survey items represent the universe of content to be measured (Van Dalen, 1966).

Kerlinger (1973) defined the content validity of a measuring instrument as the sample adequacy of content or the representativeness of substance, matter, and/or topics pertaining to the subject. He also suggested that a panel of judges evaluate the items for their relevance to the property being measured. He added that the judges should be furnished with a universe of content which is clearly defined, with specific directions for making judgments, and with specifications of what they are judging.

Helmstadter (1970) identified face validity of test items as necessary for gaining rapport of respondents, maintaining good public relations, and avoiding public negativism. Face validity, a form of content validity, adds to the plausibleness of the total instrument and to the relevance of its purpose.

Another aspect of content validity is logical validity which is concerned with whether a specific universe of behaviors or factors is sufficiently sampled by the instrument. The adequacy of content validity including the face validity and logical validity of an instrument depends upon the judgment of experts in the field.

Kerlinger (1973) also stated that the items must be judged, preferably by a panel of judges, to decide their relevance to the property being measured. Wiersma (1969) suggested that the items be tested with a small group who would be familiar with the variables and be in position to make a valid judgment about the items.

In an effort to validate an instrument for practical purposes. Good (1966) also recommended pretesting the questionnaire prior to preparing and distributing the final form to respondents. The validity of an instrument and its components may be evaluated according to the following types of information:

1. Is the question on the subject?
2. Is the question clear and unambiguous?
3. Does the question get at something stable, which is typical of the individual or the situation?
4. Does the question pull or have extractive power? Will it be answered by a large enough proportion of respondents to achieve validity?
5. Do the responses show a reasonable range of variation?
6. Is the information consistent, in agreement with what is known, and in agreement with expectancy?

7. Is the item sufficiently inclusive?
8. Is there a possibility of obtaining an external criterion to evaluate the questionnarie? (pp. 224-225)

In summary, validity means that the instrument yields the kind of information needed by the researcher. If an instrument is valid, it is suitable for the research purpose.

Opperheim (1966) explained that the qualities of validity and reliability of an instrument are interrelated:

> The degree of reliability (consistency) sets limits to the degree of validity possible: validity cannot rise above certain point if the measure is inconsistent to some degree. On the other hand, if we find that a measure has excellent validity, then it must also be reliable. (p. 70)

Reliability

The reliability of an instrument refers to the accuracy and consistency with which an instrument measures the factors it does measure within the group for which it is used (Linquist, 1951). Therefore, an instrument is reliable if it consistently yields the same results when repeated measurements are taken with the same subjects under the same conditions (Van Dalen, 1966). Stanley (1964) implies that an instrument cannot be of much value if it does not yield the same scores under comparable conditions over a period of time. He offered this statement: "Reliability is a necessary but not sufficient condition for validity. . . but a wholly unreliable test certainly has no validity" (pp. 150-151).

According to the information in a SPSS Update Manual, 1977, p. 66, Cronbach's Alpha procedure is "perhaps the most widely used reliability

coefficient." It states that the measurement process may involve judges or raters assigning scores to objects or individuals responding to test questions or sample survey questions. The computations performed by the SPSS subprogram, reliability, are designed to be used in those situations where the goal is to assess how reliable a sum or weighted sum across variables is as an estimate of a case's true score. The concept of reliability refers to how accurate, on the average, the estimate of the true score is as in a population of objects to be measured.

Usability

According to Stanley (1964), after the researcher determines reliability and validity, he considers usability or practicality of the survey instrument. In assessing the usability or practicality of the instrument, the researcher must consider the factors of coverage, convenience, economy, and interpretability.

Additional aspects of instrument design must be considered to make the instrument valuable to the research effort. Good (1963) offered the following nine items as criteria for constructing questionnaires:

1. It must be short enough so as not to take too much time and so that the respondent will not reject it completely.
2. It must be of sufficient interest and have enough face appeal so the respondent will be inclined to respond to it and to complete it.
3. The questionnaire should obtain some depth to the response in order to avoid superficial replies.
4. The ideal questionnaire must not be too suggestive or too unstimulating, particularly with reference to choices.
5. The questionnaire should elicit responses that are definite but not mechanically forced.

6. Questions must be asked in such a way that the responses will not be embarrassing to the individual.
7. Questions must be asked in such a manner as to allay suspicion on the part of the respondent regarding hidden purposes in the questionnaire.
8. The questionnaire must not be too narrow, restrictive, or limited in its scope and philosophy.
9. The responses to the questionnaire must be valid, and the entire body of data taken as a whole must answer the basic question for which the questionnaire was designed. (p. 278)

Kerlinger (1973) suggested that a questionnaire include cover sheet information, demographic information, and items requiring responses. Rummel (1958) discussed questionnaires and stated that a professionally designed instrument, properly reproduced, will elicit a higher percentage of valid returns. He added that the format should be attractive, not cause undue eye strain, and that there should be ease in moving from one item to another and in supplying the intended responses. Another equally important consideration is to design the instrument in a manner to facilitate tabulation and summarization of data.

In determining the type of items to include in the instrument, the major consideration should be the selection of an item or combination of items that will assure maximum response. According to Rummel (1958), the researcher may select questions from two major classes depending upon the nature of the research project. The first class includes those for which the respondent supplies the complete responses as in free-response, open-end items, or short answer questions. Another class of questions includes those in which the respondent selects answers as

in yes-no, true-false, or multiple-choice items. The researcher will need to determine if he/she needs structured and/or unstructured responses.

The major purpose of a research instrument is to obtain useful data. The accomplishment of this purpose is dependent upon the degree of response to the instrument. Rummel (1958) suggests that the questionnaire be designed to establish favorable rapport with the respondent at the beginning of the instrument. Questions should be designed to demand a minimum of the respondent's time. They should also be designed so that the respondent can see the value of the study as well as understand the investigator's point of view.

According to Rummel (1958), the directions for response are necessary to strengthen the design of an instrument. He stated that it would be unrealistic to assume that any group of respondents will know what to do without specific instructions. In anticipation of the respondent's needs, the researcher must provide instructions essential to clarification of specific items as well as with the items themselves. Directions should be made evident by the use of boldface type, capital letters, italics, or underlining. Directions should be prepared in such a manner to promote uniformly accurate replies.

Summary

The procedures for developing and validating survey instruments presented by Van Dalen, Good, Wiersma, Kerlinger, Helmstadter, Stanley, Linquist, and Rummel were summarized and presented. Suggested criteria

for instrument development by Good were presented. The emphasis centered on the procedures for establishing content validity and the necessity of pretesting the instrument.

The instrument which contains the essential qualities specified for appropriate research design will strengthen the research effort. The degree of success in any research effort is dependent on the design of the data collection instrument.

CHAPTER III

METHODOLOGY

I. INTRODUCTION

The purpose of this study was to identify potential leadership skills common to and developed through vocational student organizations. Chapter III presents the methodology of the study. The sections of the chapter include the population, instrumentation, data collection, and treatment of the data.

II. POPULATION

Respondents for the study were those persons serving as state supervisors and state presidents for VICA, DECA, FHA, FFA, FBLA, and OEA. The directories of state advisers and state presidents of these vocational student organizations were requested from the national executive director (Appendix A) of each organization.

III. INSTRUMENTATION

Through a review of literature and student handbooks of the various organizations, the researcher identified the initial items for the survey instrument used in this study. A jury of experts was used to structure an instrument representative of the various potential leadership skills.

The procedure for developing and validating the survey instrument was parallel to a procedure outlined by Van Dalen:

> To establish content validity, the test constructor analyzes the content of the factor that he intends to appraise and structures a representative instrument to measure the various aspects. . . . When checking content validity, the test constructor alone and with the aid of others judges the extent to which the test items present a representative sample of the universe of the content that the test is designed to measure. (Van Dalen, 1973, p. 337)

After the review of literature, the initial list of 96 potential leadership skills was compiled by the researcher (Appendix B). This list was then submitted to the six executive directories of vocational student organizations who had agreed to serve as the jury of experts for the study. Because of the nature of their leadership position, they were considered to be the most knowledgeable persons concerning the types of opportunities existing within vocational student organizations.

The six members of the jury of experts were asked to react to the initial list of potential leadership skills by indicating on a yes or nor basis if the person considered the item a potential leadership skill to be developed by students' respective vocational student organization.

As the instruments were returned, the dichotomous data were then tabulated. Those categories receiving at least a two-thirds yes vote of the members of the jury of experts were retained for the questionnaire. Of the 96 items, only 5 items (Appendix C) received less than the needed four votes and were removed from the instrument.

Seven items (Appendix D) were suggested by members of the jury of experts as additions to the initial list of potential leadership skills.

These additions were compiled and submitted to the jury of experts for their reactions. Sufficient positive responses to the additional items indicated that all should be added to the initial list of potential skills.

From the responses supplied by the national executive directors, a questionnaire (Appendix E) composed of 98 potential leadership skills was developed. To allow each item to stand alone, the items were randomly selected for a position on the final survey instrument. The instrument utilized a Likert-type scale and was designed to force the respondent to make a choice.

With the list of leadership skills, the jury of experts was sent a letter of instruction (Appendix F) which included a request for the names and addresses of the state advisers and state presidents of their respective student organizations. Also enclosed were a stamped, return-addressed envelope and a statement of assurance of confidentiality (Appendix G). The responses of the jury of experts identified the subjects for the study.

IV. DATA COLLECTION

Data for the study were obtained through responses to the survey questionnaire: Potential Leadership Skills of Vocational Student Organizations. These questionnaires were mailed to all known state advisers and state presidents of vocational student organizations throughout the United States.

With the questionnaire, a postage-paid, self-addressed envelope, an adhesive label for addresses of those respondents requesting a copy

of the findings of the study, a statement of the assurance of confidentiality, and a cover letter explaining the nature of the study were included (Appendix H). The cover letters to DECA and VICA state advisers contained requests for the mailing addresses of the state presidents of their respective organizations since this information was not available from their national offices. As the names and addresses of the DECA and VICA state presidents were received, they were mailed copies of the questionnaire.

Membership information including the numbers of state groups, local chapters, and individuals belonging to vocational student organizations is presented in Table I. A further identification of state groups is located in Table II which also indicates the states represented in the respondent groups (state advisers and state presidents). The information for this table was compiled from the directories which were obtained from the executive directors identified in Table I and the state advisers of DECA and VICA.

The survey instrument was mailed to 264 state advisers and 199 state presidents of vocational student organizations. A second mailing (Appendix I) was used to follow up the original mailing as a reminder to those individuals who had not yet responded to the original instrument by the date previously requested. A third attempt was made to contact state presidents of DECA and VICA since directories were not available for these groups. The level of acceptable returns was set at 70 percent.

TABLE I

Membership Information Relating to the Vocational Student Organizations

Student Organization	Executive Director	Percentage of Enrollment Who Are Members of Student Organization (Byers, 1977)	Membership (Pair, 1978)	
FFA (Agriculture) founded 1928	Coleman Harris	72%	state groups local groups individuals	50 8,072 509,700
FBLA (Business Education) founded 1942	Edward Miller	8%*	state groups local groups individuals	47 7,000 140,000
FHA (Home Economics) founded 1945	Mildred Reel	16%	state groups local groups individuals	52 12,000 450,000
DECA (Distributive Education) founded 1946	Harry A. Applegate	42%	state groups local groups individuals	54 5,500 175,000
VICA (Trade and Industry) founded 1965	Larry W. Johnson	12%	state groups local groups individuals	45 9,300 232,000
OEA (Office Education) founded 1966	Charles W. King	*included with FBLA	state groups individuals	20 65,000

TABLE II

Identification of State Advisers and State Presidents for Vocational Student Organizations

State	VICA		DECA		FBLA		OEA		FHA		FFA	
	Adv	Pre	Adv	Pre	Adv	Pre	Adv	Pre	Adv	Pre	Adv	Pre
Alabama	X	X	X	0	X	X	*	*	X	X	X	X
Alaska	X	X	X	X	X	X	X	*	X	X	*	X
Arizona	X	0	X	X	X	X	*	*	X	X	X	X
Arkansas	X	X	X	0	X	X	*	*	X	X	X	X
California	X	0	X	X	X	X	*	*	X	X	X	X
Colorado	X	0	X	0	X	X	*	*	X	X	X	X
Connecticut	X	0	X	0	X	X	*	*	X	X	X	X
Delaware	X	0	X	0	0	0	X	X	X	X	X	X
Washington, D.C.	X	*	X	0	X	X	*	*	X	X	*	*
Florida	X	0	X	0	X	X	*	*	X	X	X	X
Georgia	X	0	X	X	X	X	*	*	X	X	X	X
Hawaii	*	*	X	0	X	0	*	*	X	X	X	X
Idaho	X	X	X	X	0	0	X	X	X	X	X	X
Illinois	X	X	X	X	X	X	X	*	X	X	X	X
Indiana	X	X	X	X	X	X	X	X	X	X	X	X
Iowa	X	X	X	0	X	X	X	*	X	X	X	X
Kansas	X	X	X	0	X	0	X	*	X	X	X	X
Kentucky	X	0	X	X	X	X	*	*	X	X	X	X
Louisiana	X	*	X	X	X	X	*	*	X	X	X	X
Maine	X	*	X	0	X	0	X	*	X	X	X	X
Maryland	X	X	X	0	X	X	*	*	X	X	X	X
Massachusetts	X	X	X	0	0	0	*	*	X	X	X	X
Michigan	X	0	X	X	X	X	X	X	X	X	X	X
Minnesota	X	0	X	0	X	0	X	*	X	X	X	X
Mississippi	X	0	X	0	X	X	*	*	X	X	X	X
Missouri	X	0	X	0	X	X	*	*	X	X	X	X

TABLE II (Continued)

State	VICA		DECA		FBLA		OEA		FHA		FFA	
	Adv	Pre	Adv	Pre	Adv	Pre	Adv	Pre	Adv	Pre	Adv	Pre
Montana	X	0	X	X	0	0	X	X	X	X	X	X
Nebraska	X	X	X	0	X	X	*	*	X	X	X	X
Nevada	X	X	X	0	X	X	*	*	X	X	X	X
New Hampshire	X	0	X	X	X	X	*	*	X	X	X	X
New Jersey	X	0	X	0	X	X	X	*	X	X	X	X
New Mexico	X	X	X	0	X	X	X	X	X	X	X	X
New York	X	0	X	X	X	X	*	*	X	X	X	X
N. Carolina	X	X	X	X	X	X	*	*	X	X	X	X
N. Dakota	X	X	X	0	X	X	*	*	X	X	X	X
Ohio	X	X	X	0	X	X	X	X	X	X	X	X
Oklahoma	X	0	X	X	X	X	*	*	X	X	X	X
Oregon	X	X	X	0	X	X	*	*	X	X	X	X
Pennsylvania	X	X	X	X	X	X	*	*	X	X	X	X
Rhode Island	X	X	X	0	X	X	*	*	X	*	X	X
S. Carolina	X	0	X	0	X	X	*	*	X	X	X	X
S. Dakota	X	X	X	0	X	X	*	*	X	X	X	X
Tennessee	X	0	X	0	X	X	X	*	X	X	X	X
Texas	X	X	X	0	X	X	X	*	X	X	X	X
Utah	X	0	X	X	X	X	*	*	X	X	X	X
Vermont	X	X	X	X	X	X	*	*	X	X	X	X
Virginia	X	X	X	X	X	X	*	*	X	X	X	X
Washington	X	0	X	X	X	X	*	*	X	X	X	X
West Virginia	X	0	X	X	X	X	*	*	X	X	X	X
Wisconsin	X	0	X	X	X	X	X	*	X	X	X	X
Wyoming	*	*	X	X	X	X	*	*	X	X	X	X
TOTALS	49	23	51	23	47	43	17	6	51	50	49	50

X Name and address were obtained 0 Information not obtained

* Correspondence indicated a state organization did not exist.

V. TREATMENT OF THE DATA

The study was designed to answer four research questions relating to the identification of potential leadership skills of vocational student organizations. There were six groups of respondents including the following: state advisers and state presidents for (1) VICA, (2) DECA, (3) FBLA, (4) OEA, (5) FHA, and (6) FFA.

Reliability of the Survey Instrument

The Cronbach's Alpha procedure was used to determine reliability coefficients for the survey instrument and for the six groups who responded. The Statistical Package for Social Research (SPSS) subprogram "reliability" makes it possible to compute a reliability coefficient which refers "to the degree of accuracy, the estimate of the true score in a population of objects to be measured" (SPSS Update, 1977, p. 61).

The degree of reliability (agreement between the raters) of the respondents used to measure the dependent variable allows the results to support generalizations. If low reliabilities are reported or if reliability scores between respondent groups are not included, it is difficult for the reader to be sure whether change on the dependent variable was caused by the treatment or by systematic fluctuations in the ratings of the respondents (Huck, 1974).

Commonality of Potential Leadership Skills

Mean scores were used to determine potential leadership skills common to vocational student organizations. A mean rank of 4.0 for

each of the combined respondent groups was set as the necessary value for the items to be declared common.

In scoring the responses to the questionnaire, Potential Leadership Skills of Vocational Student Organizations, the following values were given to the scale:

No opportunity = 1
Almost never an opportunity = 2
Rarely an opportunity = 3
Occasionally an opportunity = 4
Frequently an opportunity = 5
Almost always an opportunity = 6

Homogeneity of Variance

One of the assumptions made by selected statistical procedures used in the study is that of equal variance. When respondent groups do not contain the same number of subjects, a test for homogeneity of variance should be made. Kerlinger (1973) lists this assumption as second in importance to the assumption of normality. Cochran's C test was used to test for homogeneity of variance as suggested by Huck (1974).

VI. TESTS FOR SIGNIFICANT DIFFERENCES

t Test

The independent t test was used to compare the mean scores of the two subgroups within each of the six organizations to determine if significant differences existed in these responses. When homogeneity of variances was lacking, the separate variance values were used. In the remaining instances, the pooled values were used.

Analysis of Variance (ANOVA)

When homogeneity of variance was achieved according to the Cochran's C value, a one-way ANOVA was used to compare the six groups in terms of

group means for common potential leadership skills. An assumption for the analysis of variance is that the variances within the groups are statistically the same (Kerlinger, 1973). If the calculated F value was larger than the critical value at the .05 level of significance found in the F table, the researcher concluded a significant F ratio and rejected the null hypothesis of equal population means.

Kruskal-Wallis One-Way ANOVA

Huck (1974) suggested the use of the nonparametric Kruskal-Wallis one-way ANOVA (this procedure is analogous to the parametric ANOVA) for items lacking homogeneity of variance to determine whether three or more independent samples come from the same population. Where there are more than three samples, a chi-square table of critical values is used with k-1 degrees of freedom (k is equal to the number of samples) (Huck, 1974).

As with the ANOVA, a significant Kruskal-Wallis value does not reveal which groups are significantly different. To determine significant differences among the groups, multiple comparison procedures must be utilized (Champion, 1970; Gibbons, 1976; and Huck, 1974).

Scheffé's Multiple Comparison Test

Scheffé's test is a conservative statistical procedure used to analyze each possible pair of means to determine significant differences. Scheffé's multiple comparison was used for each item determined by the ANOVA to have a significant F ratio (Huck, 1974). The procedure indicates significantly higher or significantly lower means as well as means which overlap.

Gibbons' Multiple Comparison Procedure

When the Kruskal-Wallis test concludes that there is a significant difference between the six groups, a statistical technique known as multiple comparisons is used to locate groups which differ significantly. The procedure for making multiple comparisons as a follow-up to the Kruskal-Wallis test is outlined by Gibbons:

> Since the goal is simultaneous statistical inference, a special technique known as multiple comparisons should be used. The overall level of significance is frequently larger than the numbers that are ordinarily used in an inference involving a single comparison. The values recommended are in the vicinity of .15, .20, or even .25, depending partly on how large K is. As the number of comparisons increases, the overall level of significance is usually increased so that any possible single difference is more likely to be detected.
>
> Several methods of simultaneous multiple comparisons between the locations of all pairs of two of the k populations have been proposed. The procedure described here is attributed to Dunn (1964). It gives conservative results, but it is the simplest method available. (1976, p. 182)

Gibbons (1976) recommends the following formula for unequal samples:

$$\left| \bar{R}_i - \bar{R}_j \right| \leq z \sqrt{\frac{N(N+1)}{12} \left(\frac{1}{n_i} + \frac{1}{n_j} \right)}$$

$\bar{R}_i$ = mean of group one

$\bar{R}_j$ = mean of group two

z = critical value

N = total respondents (342)

n_i = number of respondents group one

n_j = number of respondents group two

To determine the value of z, the researcher must first consider the total number of comparisons (p). The procedure to do this is

p = k (k - 1)/2 (k - number of groups). In applying this procedure, the researcher determined the z value to be 2.475 (Table N: Critical Z values for p Multiple Comparisons, Gibbons', 1976, p. 432). The total comparisons were 15 p = 6(6 - 1)/2 , and the level of significance was set at .20. The investigator then calculated the formula substituting the significant Kruskal-Wallis mean rank values. All differences of means that are larger than the value calculated for the right side of the formula were considered significant at .20 level. The direction of each significantly different pair was determined by the larger of the two means.

CHAPTER IV

ANALYSIS OF DATA

The purpose of this study was to identify the potential leadership skills common to and developed through vocational student organizations. This chapter presents the survey response, identification of potential leadership skills, determination of the potential leadership skills common to vocational student organizations, significant differences in the perceptions of state advisers and state presidents regarding the opportunities to develop the potential leadership skills, and the significant differences reported by respondents of the six groups as to the degree of opportunity to develop the common potential leadership skills.

Appropriate statistical procedures as presented in Chapter III were used to research the following questions which delineate the purposes of the study:

1. What are the potential leadership skills developed through participation in vocational student organizations?

2. Which of the potential leadership skills are common to all vocational student organizations?

3. Are there significant differences between the perceptions of the state advisers and the state presidents within each of the vocational student organizations regarding the opportunity to develop

the identified leadership skills through participation in that organization?

4. Are there significant differences in the opportunity to develop common potential leadership skills between the various student organizations?

I. RESPONSE TO THE SURVEY

Of the 459 individuals who were identified as respondents for the survey, 342 (74.5 percent) provided completed questionnaires useful in this study. Instruments were sent to 264 state advisers and 195 state presidents of vocational student organizations from the 48 contiguous states, Alaska, Hawaii, and Washington, D.C. These two groups had a response rate of 70.8 percent and 79.5 percent respectively. Table III displays the response rate for each of the reference groups.

II. IDENTIFICATION OF POTENTIAL LEADERSHIP SKILLS

The first question to be answered by the study was the following: What are the potential leadership skills of vocational student organizations? A jury of experts was used to answer this question. The initial list of potential leadership skills was compiled by the researcher. The national executive directors of the six vocational student organizations served as the jury of experts for the study and validated the final list of potential leadership skills. A total of 98 potential leadership skills, agreed on by at least four of the six jury of experts,

TABLE III

Survey Response Rate by Reference Group

Reference Group	Initial Contacts	Respondents	Percent of Initial Contacts
VICA Advisers	49	30	61
VICA Presidents	23	13	57
TOTAL VICA RESPONDENTS	72	43	60
DECA Advisers	51	29	57
DECA Presidents	23	18	78
TOTAL DECA RESPONDENTS	74	47	64
FBLA Advisers	47	29	62
FBLA Presidents	43	36	84
TOTAL FBLA RESPONDENTS	90	65	72
OEA Advisers	17	15	88
OEA Presidents	6	6	100
TOTAL OEA RESPONDENTS	23	21	91
FHA Advisers	51	45	88
FHA Presidents	50	40	80
TOTAL FHA RESPONDENTS	101	85	84
FFA Advisers	49	39	80
FFA Presidents	50	42	84
TOTAL FFA RESPONDENTS	99	81	82
Advisers	264	187	70.8
Presidents	195	155	79.5
TOTAL	459	342	74.5

were identified and listed as potential leadership skills on the survey instrument (Appendix E).

III. RELIABILITY OF THE SURVEY INSTRUMENT

Reliability of the survey instrument was established using the Cronbach Alpha procedure. The same procedure also established reliability coefficients for each of the respondent groups. The overall reliability coefficient was .973. Coefficients for the six groups are presented in Table IV.

TABLE IV

Reliability Coefficients by Groups Using the Cronbach Alpha Procedure

Subgroups	Reliability Coefficients
VICA	0.976
DECA	0.972
FBLA	0.983
OEA	0.967
FHA	0.965
FFA	0.980

IV. POTENTIAL LEADERSHIP SKILLS WHICH ARE COMMON TO VOCATIONAL STUDENT ORGANIZATIONS

Mean scores were used to determine potential leadership skills common to vocational organizations. The instrument utilized a Likert-type scale and the following values were assigned to the scale:

(1) no opportunity exists; (2) almost never does an opportunity exist; (3) rarely does an opportunity exist; (4) occasionally an opportunity exists; (5) frequently an opportunity exists; and (6) almost always an opportunity exists. A mean value of 4.0 was set as the necessary rating for the potential leadership skill to be declared common. These data were used to answer research question number 2: Which of the potential leadership skills are common to all vocational student organizations? The potential leadership skills and mean scores for each item by respondent groups are listed in Table V. The absolute frequencies for each degree of opportunity are reported in Appendix J.

Eighty-five of the ninety-eight potential leadership skills achieved a rating of 4.0 or higher by all six groups and were accepted as being common. Thirteen items failed to meet the criteria of commonality. Potential leadership skills which were rejected together with group mean scores are shown in Table VI.

Responses by FHA representatives were singly responsible for seven of the thirteen potential leadership skills being rejected. Those were numbers 21, 22, 35, 40, 66, 77, and 98. FHA respondents in combination with the other groups rejected three additional items, numbers 34, 56, and 80. DECA alone rejected item number 15. Item number 50 was rejected by four groups excluding FHA. FFA respondents did not reject any items on the survey instrument.

Two potential leadership skills: item number 21, participate in public speaking contests and item 40, participate in job interview contests received mean scores of 2.7 and 2.2 respectively by FHA

TABLE V

Combined Mean Responses of State Advisers and State Presidents for Potential Leadership Skills of Vocational Student Organizations by Respondent Groups

	Skill	VICA	DECA	FBLA	OEA	FHA	FFA
1.	Explore occupational opportunities	5.0	5.1	5.1	5.4	4.9	5.6
2.	Develop desirable personal attributes:						
	a. Dependability	5.5	5.5	5.6	5.7	5.6	5.8
	b. Responsibility	5.5	5.7	5.7	5.6	5.8	5.8
	c. Initiative	5.6	5.4	5.5	5.8	5.7	5.8
3.	Display a cooperative attitude	5.5	5.6	5.6	5.4	5.6	5.5
4.	Express openly one's opinion	5.2	5.5	5.3	4.9	5.5	5.5
5.	Achieve personal goals	5.0	5.3	5.1	5.6	5.6	5.6
6.	Establish realistic occupational goals	5.0	5.1	4.9	5.5	4.7	5.5
7.	Plan chapter activities	5.2	5.3	5.5	5.5	5.7	5.5
8.	Organize chapter events	5.2	5.5	5.6	5.3	5.6	5.5
9.	Earn recognition	5.2	5.6	5.6	5.4	5.1	5.8
10.	Respect the property of others	5.2	5.4	5.2	5.2	5.2	5.5
11.	Communicate the relationship of vocational student organization to curriculum and vocational education	4.9	5.1	5.0	5.2	5.0	5.4
12.	Promote youth/adult interaction	4.9	5.2	5.2	5.0	5.2	5.2
13.	Complete projects started	5.3	5.5	5.6	5.6	5.6	5.7
14.	Plan chapter programs	5.0	5.3	5.4	5.3	5.5	5.4
15.	Strengthen relationships among family members	4.4	3.9	4.2	4.1	5.1	4.9

TABLE V (Continued)

	Skill	VICA	DECA	FBLA	OEA	FHA	FFA
16.	Cope effectively in a variety of situations	4.9	5.1	5.0	5.0	5.2	5.1
17.	Communicate well with groups	5.1	5.2	5.1	5.6	5.3	5.5
18.	Earn recognition through chapter achievements	5.3	5.4	5.3	5.7	5.0	5.7
19.	Evaluate chapter progress	4.7	5.2	5.0	4.8	4.9	5.2
20.	Strive to perform to the best of one's ability	5.3	5.5	5.5	5.7	5.5	5.7
21.	Participate in public speaking contests	4.9	4.1	5.0	5.1	2.7	5.5
22.	Demonstrate proficiency in occupational terminology	4.8	4.7	4.9	5.0	3.6	5.2
23.	Develop materials for the news media	4.7	4.4	4.8	4.5	4.6	4.8
24.	Demonstrate ability to be a follower	5.1	5.2	5.2	5.4	5.4	5.1
25.	Respect individuality	5.2	5.3	5.3	5.5	5.6	5.3
26.	Demonstrate problem-solving ability	4.8	5.0	4.9	5.3	5.3	5.2
27.	Prepare adequate records	4.7	4.7	4.9	5.2	4.8	5.5
28.	Present a speech	5.0	4.6	5.0	5.1	4.6	5.5
29.	Assist in fund-raising projects	5.0	5.3	5.5	5.7	5.4	5.5
30.	Prepare for leadership role beyond the vocational student organization	5.3	5.2	5.2	5.4	5.2	5.7
31.	Demonstrate effective ways of working with groups	5.0	5.2	5.2	5.3	5.3	5.5
32.	Encourage recreational and leisure activities for groups and individuals	5.0	4.9	4.9	4.7	5.2	5.3
33.	Attend chapter meetings regularly	5.3	5.3	5.5	5.5	5.5	5.7
34.	Participate in safety program	4.8	3.4	3.7	3.6	3.5	5.0

TABLE V (Continued)

	Skill	VICA	DECA	FBLA	OEA	FHA	FFA
35.	Participate in occupational skill events	5.5	5.1	5.2	5.8	3.2	5.4
36.	Lead group discussions	4.9	4.9	5.0	4.9	5.1	5.3
37.	Develop occupational competence	5.3	5.4	5.3	5.8	4.2	5.5
38.	Participate in projects sponsored by the organization	5.5	5.6	5.6	5.7	5.7	5.7
39.	Conduct chapter activites	5.1	5.4	5.5	5.3	5.5	5.5
40.	Participate in job interview contest	4.9	4.1	5.1	4.8	2.2	3.7
41.	Serve as a peer educator	4.5	4.4	4.5	4.5	4.7	4.5
42.	Interact with peers	5.4	5.4	5.5	5.5	5.5	5.4
43.	Explain the meaning of the emblem of the organization	5.3	4.4	4.6	5.3	5.0	5.3
44.	Make intelligent decisions	5.3	5.3	5.5	5.5	5.6	5.5
45.	Explain the purposes of the organization	5.2	5.0	5.1	5.3	5.3	5.5
46.	Uphold the majority decision	5.3	5.3	5.4	5.5	5.6	5.6
47.	Guide others to productive activity	4.8	4.8	5.0	5.4	5.3	5.4
48.	Perform role in opening ceremony	5.1	4.2	4.7	5.0	5.1	5.4
49.	Communicate effectively with adults	4.9	4.9	5.1	5.0	5.3	5.3
50.	Supervise children's activities	3.8	3.5	3.5	3.2	4.7	4.3
51.	Assist others in career decisions	4.1	4.2	4.2	4.4	4.0	4.6
52.	Participate in state activities of the organization	5.3	5.2	5.4	5.5	5.5	5.5
53.	Acquire self-confidence	5.5	5.4	5.6	5.5	5.7	5.8
54.	Develop salable personality to complement salable skill	5.1	5.4	5.2	5.4	4.6	5.3

TABLE V (Continued)

	Skill	VICA	DECA	FBLA	OEA	FHA	FFA
55.	Demonstrate good human relations techniques in a variety of situations	5.0	5.2	5.2	5.3	5.2	5.4
56.	Exhibit a project in a fair	4.2	3.6	3.9	3.6	3.8	5.3
57.	Use correct parliamentary procedures	4.7	4.8	5.2	5.2	4.9	5.7
58.	Assume chairperson role of a committee	4.9	5.0	5.1	5.0	5.4	5.4
59.	Accept an office in the organization	5.2	5.1	5.2	5.1	5.5	5.4
60.	Stimulate the desire for learning	4.9	4.9	5.2	5.3	5.3	5.4
61.	Plan activities to help reach personal goals	4.9	4.8	4.8	5.4	5.5	5.5
62.	Improve home life	4.5	4.0	4.1	4.3	5.5	5.3
63.	Give constructive criticism	4.8	4.9	5.1	4.9	5.1	5.2
64.	Demonstrate the correct procedures for conducting the organizations's business	4.9	5.0	5.3	5.4	5.0	5.5
65.	Participate as a team member	5.1	5.0	5.5	5.3	5.4	5.6
66.	List the fundamentals of the American democracy	4.7	4.1	4.5	4.0	3.5	4.8
67.	Arrange an educational tour	4.0	3.9	4.4	3.9	4.2	4.7
68.	Participate in community projects	5.0	4.8	5.2	5.2	5.5	5.4
69.	Prepare a newspaper article	4.7	4.6	4.9	5.1	4.8	4.9
70.	Listen attentively	5.3	5.5	5.4	5.5	5.6	5.4
71.	Participate in the national convention	5.0	4.7	5.0	4.9	4.8	5.1
72.	Participate in the state convention	5.4	5.3	5.5	5.5	5.5	5.6
73.	Prepare a speech	5.1	4.7	4.9	5.0	4.7	5.5

TABLE V (Continued)

	Skill	VICA	DECA	FBLA	OEA	FHA	FFA
74.	Prepare for employment	5.4	5.3	5.3	5.8	4.6	5.6
75.	Demonstrate decision-making skills	5.1	5.1	5.2	5.3	5.5	5.5
76.	Improve the welfare of the community	4.5	4.7	4.8	4.9	5.1	5.3
77.	Participate in competitive events	5.4	5.3	5.3	5.7	3.2	5.6
78.	Increase awareness of multiple role of men and women	4.8	4.5	4.8	5.2	5.5	5.0
79.	Examine personal values	4.9	4.9	4.9	5.1	5.6	5.4
80.	Participate in organization's camp	4.0	3.5	3.3	3.1	3.1	4.6
81.	Strive for personal development	5.3	5.2	5.3	5.5	5.7	5.5
82.	Perform volunteer work	5.0	4.8	5.0	5.2	5.3	5.4
83.	Promote worthwhile activities	5.2	5.3	5.5	5.5	5.6	5.6
84.	Participate in a leadership conference	5.4	5.3	5.4	5.3	5.6	5.4
85.	Recite the motto of the organization	5.2	4.5	4.8	5.1	5.2	5.5
86.	Relate well to adults	5.2	5.0	5.1	5.0	5.5	5.4
87.	Perform role in closing ceremony	5.1	4.1	4.2	5.1	5.2	5.4
88.	Develop understanding	5.1	5.0	5.0	5.1	5.5	5.4
89.	Participate in self-improvement activities	5.2	5.1	4.9	5.2	5.5	5.6
90.	Seek opinions of others	5.2	5.3	5.0	5.1	5.4	5.5
91.	Develop occupational skills	5.5	5.3	5.5	5.6	4.5	5.6
92.	Assume responsibility for personal behavior	5.3	5.5	5.4	5.2	5.6	5.6
93.	Perform committee assignments	5.1	5.3	5.4	5.0	5.5	5.6
94.	Respect rights of others	5.3	5.5	5.5	5.7	5.7	5.6

TABLE V (Continued)

	Skill	VICA	DECA	FBLA	OEA	FHA	FFA
95.	Report information accurately	5.2	5.1	5.2	5.4	5.4	5.4
96.	Demonstrate excellence in accomplishments	5.2	5.3	5.3	5.5	5.2	5.5
97.	Demonstrate excellence in skill training	5.2	5.3	5.3	5.7	4.3	5.5
98.	Prepare notebook verification of accomplishments	4.8	4.6	4.4	4.8	3.9	5.3

TABLE VI

Potential Leadership Skills Which Are Not Common to Vocational Student Organizations and Combined Mean Scores by Respondent Groups

Potential Leadership Skill	VICA	DECA	FBLA	OEA	FHA	FFA
15. Strengthen relationships among family members	4.4	3.9	4.2	4.1	5.1	4.9
21. Participate in public speaking contests	4.9	4.1	5.0	5.1	2.7	5.5
22. Demonstrate proficiency in occupational terminology	4.8	4.7	4.9	5.0	3.6	5.2
34. Participate in safety program	4.8	3.4	3.7	3.6	3.5	5.0
35. Participate in occupational skill events	5.5	5.1	5.2	5.8	3.2	5.4
40. Participate in job interview contest	4.9	4.1	5.1	4.8	2.2	3.7
50. Supervise children's activities	3.8	3.5	3.5	3.2	4.7	4.3
56. Exhibit a project in a fair	4.2	3.6	3.9	3.6	3.8	5.3
66. List the fundamentals of the American democracy	4.7	4.1	4.5	4.0	3.5	4.8
67. Arrange an educational tour	4.0	3.9	4.4	3.9	4.2	4.7
77. Participate in competitive events	5.4	5.3	5.3	5.7	3.2	5.6
80. Participate in organization's camp	4.0	3.6	3.3	3.1	3.1	4.6
98. Prepare notebook verification of accomplishments	4.8	4.6	4.4	4.8	3.9	5.3
LEADERSHIP SKILLS REJECTED	1	6	4	5	10	0

___ Group mean value below criteria established for commonality.

respondents. These two items were the only potential leadership skills to receive less than 3.0 mean scores.

Of the 600 combined state adviser and state president responses, 473 (79 percent) ranked items with mean scores of 5.0 and above. Eighty-seven responses (15 percent) indicated mean scores of 4.0 to 4.9, and 27 responses were 3.0 to 3.9 mean values (Table V, p. 60). In examining overall mean scores reported by state presidents and state advisers for the 98 potential leadership skills, 92 of the items were rated higher by state presidents (Appendix K).

V. SIGNIFICANT DIFFERENCES BETWEEN THE PERCEPTIONS OF STATE ADVISERS AND STATE PRESIDENTS REGARDING THE OPPORTUNITIES TO DEVELOP THE IDENTIFIED LEADERSHIP SKILLS

Comparisons were made between mean scores of state advisers and state presidents for each item. These data were used to answer research question number 3: Are there significant differences between the perceptions of state advisers and state presidents within each of the vocational student organizations regarding the opportunities to develop the identified leadership skills through participation in that organization?

t Test. The t test comparison of the mean scores of state advisers and state presidents in rating each potential leadership skill revealed 80 items with mean scores which were significantly different. Of those items, 73 potential leadership skills were rated significantly higher at the .05 level by state presidents in the degree of opportunity to develop those particular leadership skills (Appendix L).

A summary of the significant mean responses by state advisers and state presidents are presented in Table VII.

Eight of the ten significant differences in the VICA group indicated higher means reported by state presidents. The six significant differences reported by DECA respondents were based on higher mean scores by state presidents. FBLA did not indicate any significant differences in the mean scores of state advisers and state presidents. Of the seven significant differences by OEA respondents, one item was rated significantly higher by state presidents.

The FHA state presidents rated 24 items significantly higher than state advisers. The respondents for FFA reported 32 significant differences, and all of those responses had significantly higher means reported by FFA state presidents. Together the FFA and FHA presidents accounted for 56 of the 73 items rated significantly higher by the presidents.

VI. SIGNIFICANT DIFFERENCES IN THE OPPORTUNITY TO DEVELOP THE LEADERSHIP SKILLS

Several procedures were necessary to analyze the data relative to the fourth research question: Are there significant differences in the degree of opportunity to develop common potential leadership skills of vocational student organizations? Each of the major steps together with relevant data are reported below.

Homogeneity of Variance

As the groups did not contain the same number of respondents (see Table III, p. 57), it was necessary to test the assumption

TABLE VII

Summary of Mean Responses Significantly Higher by Respondent Positions and by Respondent Groups Based on t Test Comparisons*

Groups	State Advisers Item	Total	State Presidents Item	Total
VICA	9, 76	2	38, 52, 53, 58, 59, 64, 72, 87	8
DECA			27, 40, 57, 58 64, 95	6
FBLA				
OEA	3, 15, 26, 42, 50	5	28, 47	2
FHA			6, 35, 38, 43, 44, 45, 48, 52, 53, 57, 59, 63, 71, 72, 74, 77, 84, 85, 87, 88, 91, 96, 97, 98	24
FFA			1, 6, 13, 17, 19, 20, 21, 27, 28, 30, 33, 43, 44, 45, 47, 48, 49, 53, 55, 57, 58, 59, 60, 61, 73, 74, 78, 83, 86, 87, 91, 98	32
	TOTAL	7	TOTAL	73

*Significant at .05 level

of equal variance. The test for homogeneity indicates if there are equal variances in the responses for a particular item. Proportions are computed for each variance within each group. Small samples are more responsive to differences in variances. Therefore, the values are similar to chi-square values where the degrees of freedom influence the value that is significant. A value which is significant in one case may not be significant for another item from a population of a different size. Cochran's C test was used for this test. The results indicated that 53 of the 85 items common to all six groups supported the assumption of equal variance (Table VIII).

Because some responses did not meet the assumption of equal variance, it was necessary to utilize different statistical tests to determine significant differences. For those 53 items which meet the assumption of equal variances, the one-way ANOVA was used. For the remaining 32 items, those which did not meet the assumption of equal variance, the Kruskal-Wallis procedure was used.

Tests for Significant Differences

Analysis of Variance (ANOVA). The one-way ANOVA was used to compare the six groups in terms of the group means on the 53 items which meet the assumptions of equal variances. The ANOVA revealed a significant F ratio for 35 of these 53 common potential leadership skills (Table IX). The significant F ratio indicated that at least one of the six group means was significantly different from one of the other group means. To locate the cause of the significant F, the researcher used Scheffe's multiple comparison test as a follow-up analysis on the data.

TABLE VIII

Values for Homogeneity of Variance Based on Cochran's C Test

(Homogeneity Established at .95 Level of Confidence)

Item	Value	Probability	Item	Value	Probability
1	.2393	.048	45	.2299	.098
2	.2361	.061	46	.2102	.356
3	.2166	.240	47	.1977	.706
4	.3845	.0001*	48	.3972	.0001*
5	.2416	.040*	49	.2098	.364
6	.2519	.017*	51	.2113	.334
7	.2702	.003*	52	.2012	.587
8	.2733	.002*	53	.2397	.047*
9	.3258	.0001*	54	.2166	.241
10	.2454	.032*	57	.2578	.010*
11	.2171	.240	58	.2312	.089
12	.1959	.773	59	.1991	.657
12	.2154	.260	60	.2274	.117
14	.2246	.142	61	.2413	.041*
16	.2232	.156	62	.2750	.002*
17	.2126	.308	63	.2034	.524
18	.3147	.0001*	64	.2228	.160
19	.2479	.024*	65	.3395	.0001*
20	.2422	.039*	68	.2316	.087
23	.2327	.080	69	.2390	.049
24	.1989	.662	70	.2346	.069
25	.2375	.056	71	.2171	.234
26	.1897	1.000	72	.2084	.395
27	.2317	.086	73	.2777	.002*
28	.2758	.002*	74	.3313	.0001*
29	.2633	.006*	75	.2157	.255
30	.2152	.263	76	.2209	.182
31	.2275	.116	78	.2436	.034*
32	.1960	.768	79	.2358	.063
33	.2218	.172	81	.1934	.870
36	.1887	1.000	82	.2194	.202
37	.4377	.0001*	83	.2176	.225
38	.2563	.012*	84	.1965	.748
39	.2030	.535	85	.2991	.0001*
41	.2587	.010*	86	.2216	.170
42	.2335	.075	87	.3085	.0001*
43	.2688	.004*	88	.2098	.364
44	.2207	.185	89	.2279	.113

TABLE VIII (Continued)

Item	Value	Probability	Item	Value	Probability
			90	.2070	.429
			91	.3665	.0001*
			92	.2713	.003*
			93	.2287	.107
			94	.2673	.004*
			95	.1975	.713
			96	.2674	.004*
			97	.3987	.0001*

* Significant difference $\geq$ .05 (homogeneity lacking).

TABLE IX

F Ratio Based on the ANOVA for Homogeneous Items
According to Cochran's C Values

Item	ANOVA F Ratio *P ≤ .05	Item	ANOVA F Ratio *P ≤ .05	Item	ANOVA F Ratio *P ≤ .05
1	5.966*	39	1.710	71	1.213
2	1.737	42	0.233	72	0.552
3	.778	44	1.650	75	3.792*
11	2.542*	45	2.779*	76	4.198*
12	1.372	46	2.224*	79	7.874*
13	2.591*	47	6.422*	81	3.096*
14	2.991*	48	1.824*	82	2.861*
16	.783	49	3.028*	83	2.061
17	3.254*	51	3.596*	84	.0923
23	1.709	52	1.750	86	4.767*
24	1.692	53	2.357*	88	4.978*
25	2.887*	58	4.767*	89	6.685*
26	3.391*	59	2.700*	90	3.332*
27	9.454*	60	3.054*	93	4.289*
30	3.519*	63	1.369	95	2.086
31	3.046*	64	4.853*		
32	2.074*	68	5.042*		
33	1.836	69	1.081*		
36	2.278*	70	1.333		

*Significant at .05 level

Kruskal-Wallis ANOVA. The Kruskal-Wallis ANOVA was used to determine significant differences for those 32 items which were lacking in homogeneity of variance according to the Cochran's C test. This procedure indicated significant chi-square values for 25 items (Table X). The mean ranks based on the Kruskal-Wallis test (Appendix M) were further analyzed by the Gibbon's multiple comparison procedure.

Multiple Comparison Tests

Multiple comparison or post hoc comparisons are used to find exactly where significant differences lie. These statistical procedures analyze each possible pair of means to determine if two means are significantly different.

Scheffé's. Scheffé's multiple comparison test was used for 35 items (Table XI) with a significant F ratio determined by the ANOVA. The respondents for FFA gave 13 significantly higher mean scores on items than did at least one other group and no lower mean scores. VICA respondents rated 1 item significantly higher and 9 items significantly lower than the other groups rated them. FHA respondents gave significantly higher mean scores to 8 items and significantly lower mean scores to 3 items. Respondents for FBLA and DECA respectively rated 3 items and 6 items significantly lower than did other respondent groups. OEA respondents did not rank any items signficantly higher or significantly lower than any other reference group.

The Gibbons' Multiple Comparison Procedure. The Gibbon's Multiple Comparison allowed for simultaneous comparison of all possible pairs of

TABLE X

Kruskal-Wallis X^2 Value for Nonhomogeneous Items According to Cochran's C Values

Item	Kruskal-Wallis *P ≤ .05	Item	Kruskal-Wallis *P ≤ .05
4	12.524*	48	26.324*
5	37.034*	54	22.488*
6	43.842*	57	54.296*
7	23.117*	61	54.148
8	12.431*	62	84.770*
9	31.962*	65	21.687*
10	7.633*	73	29.164*
18	29.888*	74	57.964
19	7.862	78	40.164*
20	14.233*	85	29.400*
28	41.099*	87	45.865*
29	9.346	91	58.115*
37	63.439*	92	8.521
38	8.991	94	9.648
41	8.120	96	7.120
43	31.628*	97	55.559*

*Significant at the .05 level.

TABLE XI

Scheffé's Test for Multiple Comparisons Based on Group Mean Scores

Potential Leadership Skill	Groups					
	VICA	DECA	FBLA	OEA	FHA	FFA
1. Explore educational opportunities	** 4.9767	5.0652	5.0923	5.4286	** 4.8929	* 5.5610
11. Communicate the relationship of the vocational student organization to the curriculum and vocational education	4.8837	5.1087	5.0154	5.1500	4.959	NS 5.3951
13. Complete projects started	** 5.2558	5.5692	5.5692	5.5714	5.5714	* 5.6707
14. Strengthen relationships among family members	** 5.0233	5.3043	5.4000	5.3333	* 5.5294	5.3902
17. Communicate well with groups	5.0465	5.2391	5.1385	5.5238	5.3333	NS 5.5000
25. Respect individuality	5.1860	5.3043	5.2923	5.5238	5.6353	NS 5.3293
26. Demonstrate problem solving ability	** 4.7907	5.0435	4.9385	5.3000	* 5.3059	5.1605
27. Prepare adequate records	4.6667	4.7391	4.9231	5.1905	4.7738	* 5.5122
30. Prepare for leadership role beyond the vocational student organization	5.3256	5.2174	5.2154	5.3500	** 5.1765	* 5.6463
31. Demonstrate effective ways of working with groups	** 4.9535	5.1522	5.2154	5.3333	5.3412	* 5.4756
32. Encourage recreational and leisure activities for groups and individuals	4.9535	4.8913	4.9231	4.7143	5.2353	NS 5.2561

TABLE XI (Continued)

Potential Leadership Skill	Groups					
	VICA	DECA	FBLA	OEA	FHA	FFA
36. Lead group discussions	* 4.9070	** 3.3696	3.6308	3.8571	3.5422	* 4.9390
42. Interact with peers	4.7907	4.9130	4.9692	4.9048	5.0588	NS 5.2805
45. Explain the purposes of the organization	5.2326	5.0217	5.1231	5.3333	5.3294	NS 5.0000
46. Uphold the majority decision	5.3488	5.3043	5.4154	5.4762	5.5833	NS 5.6341
47. Guide others to productive activity	4.7907	** 4.7391	5.000	5.1429	5.2941	* 5.4024
49. Communicate effectively with adults	4.8842	4.8481	5.1082	5.0001	5.282	NS 5.280
51. Assist others in career decisions	4.0930	4.1739	4.1538	4.4762	** 3.9529	* 4.6341
53. Acquire self-confidence	5.4524	5.4348	5.6154	5.4500	5.6471	NS 5.7561
58. Assume chairperson role of a committee	** 4.9070	** 4.8913	5.1231	5.0000	5.3529	* 5.4390
59. Accept an office to the organization	5.2093	5.1087	5.2000	5.0952	5.4941	NS 5.4146
60. Stimulate the desire for learning	4.9302	4.9348	5.1692	5.3333	5.2588	NS 5.4198
64. Demonstrate the correct procedure for conducting the organization's business	** 4.8605	5.0000	5.2462	5.2857	5.0118	* 5.5122
68. Participate in community projects	5.0000	* 4.8261	5.1846	5.2381	* 5.5000	* 5.3780
69. Prepare a newspaper article	4.7442	4.6087	4.8769	5.0952	4.8118	NS 4.9634

TABLE XI (Continued)

Potential Leadership Skill	Groups					
	VICA	DECA	FBLA	OEA	FHA	FFA
75. Demonstrate decision-making skills	** 5.0465	5.1087	5.2308	5.2857	* 5.5412	5.4512
76. Improve the welfare of the community	** 4.5349	4.7174	4.8095	4.8571	4.8571	* 5.2805
79. Examine personal values	4.9302	4.8913	** 4.8615	5.1429	* 5.6000	5.3537
81. Strive for personal development	5.3023	5.2174	5.3231	5.5238	5.6667	NS 5.5122
82. Promote worthwhile activities	5.0000	4.8043	4.9531	5.2381	5.2588	NS 5.3415
86. Relate well to adults	5.1190	** 4.9130	5.0769	5.0000	* 5.4588	5.3902
88. Develop self-understanding	5.1395	** 4.9783	** 4.9844	5.0476	* 5.5294	5.4268
89. Participate in self-improvement activities	5.2326	5.0667	** 4.9385	5.2381	5.5059	* 5.6098
90. Seek opinions of others	5.2326	5.3261	5.0462	5.0000	5.3765	NS 5.4878
93. Perform committee assignments	5.0930	5.3043	5.3846	5.0000	5.4706	NS 5.5610

*Mean value significantly higher than at least one other group mean.

**Mean value significantly lower than at least one other group mean.

NS - No significant difference between mean scores.

means. This procedure was used as a follow-up for the 25 items with a significant Kruskal-Wallis chi-square value. This procedure compared the mean ranks reported by the Kruskal-Wallis ANOVA (Appendix M). The 15 values for the right-hand size of

$$\left|\bar{R}_i - \bar{R}_j\right| \leq z\sqrt{\frac{N(N+1)}{12}\left(\frac{1}{n_i} + \frac{1}{n_j}\right)}$$

are reported in Appendix N and the significant differences of means of respondent groups are reported in Appendix O.

The significant difference by items and direction of differences are shown in Table XII. A summary of the group comparisons which showed significant differences is also shown in Table XII.

The Gibbons' multiple comparison procedure indicated 95 significant differences (Appendix O) for the 375 comparisons. VICA respondents reported significantly higher means for 13 comparisons. Both DECA and FBLA respondents report significantly higher means four times. OEA respondents reported 12 significantly higher means. Nineteen of the 39 significant differences reported by FHA were significantly higher by FHA. The 47 significant differences involving the FFA were the result of higher mean scores by the FFA respondents for all but one comparison in which case FHA was higher.

VII. SUMMARY OF SIGNIFICANT DIFFERENCES BASED ON MULTIPLE COMPARISON PROCEDURES

The post hoc multiple comparisons were necessary to show details of significant differences indicated by the ANOVA and the Kruskal-Wallis

TABLE XII

Significant Differences by Items, by Groups and Direction of Differences

(Based on Gibbon's Multiple Comparison Procedure)

Group	(1) VICA	(2) DECA	(3) FBLA	(4) OEA	(5) FHA		(6) FFA		Total Number of Significant Differences
(1) VICA		43(1)*	43(1)	5(4)	5(5)	62(5)	5(6)	28(6)	25
		87(1)	87(1)		7(5)	74(1)	6(6)	57(6)	
					8(5)	78(5)	9(6)	61(6)	
					37(1)	91(1)	18(6)	62(6)	
					61(5)		20(6)	65(6)	
(2) DECA				43(4)	7(5)	74(2)	6(6)	61(6)	25
				61(4)	37(2)	87(5)	18(6)	62(6)	
					43(5)	78(5)	28(6)	65(6)	
					54(2)	91(2)	43(6)	73(6)	
					61(5)	97(2)	48(6)	85(6)	
					62(5)		57(6)	87(6)	
(3) FBLA				43(4)	5(5)	74(3)	5(6)	61(6)	23
				61(4)	37(3)	78(5)	6(6)	62(6)	
					43(5)	91(3)	18(6)	73(6)	
					61(5)	97(3)	28(6)	85(6)	
					62(5)		43(6)	87(6)	
							57(6)		

TABLE XII (Continued)

Group	(1) VICA	(2) DECA	(3) FBLA	(4) OEA	(5) FHA		(6) FFA		Total Number of Significant Differences
(4) OEA					6(4)	62(5)	4(6)		10
					18(4)	74(4)	62(6)		
					37(4)	91(4)			
					54(4)	97(4)			
(5) FHA							6(6)	57(6)	12
							9(6)	73(6)	
							18(6)	74(6)	
							28(6)	78(5)	
							37(6)	91(6)	
							54(6)	97(6)	
(6) FFA									
Group Comparisons with Significant Differences		2	2	5	39		47		Total 95

Items with significant differences between mean ranks reported with an overall confidence of at least .80 (the level of significance was selected as .20).

*The numbers enclosed in parentheses indicate the group with the significantly higher mean.

statistical tests. The Scheffé's test and Gibbons' procedure were used to locate significant differences. The Scheffé's is a multiple comparison procedure. Gibbons' location procedure compares two groups. The data from these tests have been summarized and are presented in Table XIII. A greater number of significantly higher mean differences were reported by FFA respondents by both multiple comparison procedures than for the other groups.

TABLE XIII

Items by Groups with Significantly Higher or Significantly Lower Mean Scores Based on Multiple Comparison Procedures

	Significantly Higher Means		Significantly Lower Means	
Group	Item	Total	Item	Total
VICA	a.[1] 36	1	a. 1, 13, 14, 26, 31, 58, 64, 75, 76, 78	10
	b.[2] 43, 87, 87, 37, 74, 91, 97, 43	8	b. 5, 5, 7, 8, 61, 62, 5, 6, 9, 18, 20, 28, 57, 62, 65, 43	15
DECA	a.	0	a. 36, 47, 58, 68, 78, 86, 88	7
	b. 37, 54, 74, 91, 97	5	b. 43, 61, 5, 43, 61, 22, 87, 91, 97, 6, 18, 28, 43, 48, 57, 61, 62, 65, 73, 85, 87	21
FBLA	a.	0	a. 78, 79, 88, 89	4
	b. 37, 74, 91, 97	4	b. 43, 61, 5, 43, 61, 62, 87, 5, 6, 18, 28, 43, 57, 61, 62, 73, 85, 87, 87	19
OEA	a.	0	a.	0
	b. 6, 18, 37, 54, 74, 91, 97, 5, 43, 61, 43, 61	12	b. 4, 62, 62	3
FHA	a. 14, 26, 68, 75, 78, 79, 86, 88	8	a. 1, 30, 51	3
	b. 5, 7, 8, 61, 62, 5, 43, 61, 62, 87, 5, 43, 61, 62, 87, 62	16	b. 6, 9, 18, 37, 54, 57, 73, 74, 91, 97, 37, 74, 91, 97, 37, 74, 91, 97, 37, 74, 91, 97, 6, 18, 37, 54, 74, 91, 97	19

TABLE XIII (Continued)

Group	Significantly Higher Means		Significantly Lower Means	
	Item	Total	Item	Total
FFA	a. 1, 13, 27, 30, 31, 36, 47, 51, 58, 64, 68, 76, 89	13	a. 78	1
	b. 5, 6, 9, 18, 20, 28 57, 61, 62, 65, 6, 18, 28, 43, 48, 57, 61, 62, 65, 73, 85, 87, 5, 6, 18, 28, 28, 43, 57, 61, 62, 73, 85, 87, 4, 62, 6, 9, 18, 37, 54, 57, 73, 74, 91, 97	46	b.	0

a.[1] Significant differences based on Scheffé's Multiple Comparison Test.

b.[2] Significant difference based on Gibbons' Multiple Comparison procedure.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

Vocational student organizations were introduced over fifty years ago by the Smith-Hughes Act to strengthen the quality of vocational education and to assist in the development of well-rounded youth. States were encouraged to support vocational student organizations as integral components of the vocational curriculum. Despite the fact that vocational student organizations have been in existence from twelve to over fifty years, very little research has been done to verify the contributions of vocational student organizations.

In an effort to identify contributions of vocational student organizations toward leadership development, data were collected to answer the following questions:

1. What are the potential leadership skills developed through participation in vocational student organizations?

2. Which of the potential leadership skills are common to all vocational student organizations?

3. Are there significant differences between the perceptions of the state advisers and the state presidents within each of the vocational student organizations regarding the opportunity to develop the identified leadership skills through participation in that organization?

4. Are there significant differences in the opportunity to develop common potential leadership skills between the various student organizations?

The study involved a population of 463 individuals, composed of 264 state advisers and 199 state presidents to vocational student organizations. All respondents were serving vocational student organizations at the time of the study and were representatives of the 50 states and Washington, D.C.

The review of literature provided a tentative list of potential leadership skills of vocational student organizations. The jury of experts were asked to react to the list of potential leadership skills by agreeing or disagreeing that the items were potential leadership skills of vocational student organizations. They were also asked to suggest additions to the list. A 60 percent majority opinion of the experts provided a list of 98 items for the questionnaire.

A final questionnaire was designed to include the 98 items requiring a response on a Likert-type scale ranging from a low of 1 to a high of 6. The questionnaire was mailed to the 463 state advisers and state presidents in all six reference groups. A follow-up mailing was made as needed after the initial mailing. The 342 respondents constituted a 74.5 percent return.

The Cronbach Alpha Procedure was used to determine an overall reliability coefficient for the questionnaire. Reliability coefficients for the six groups were reported.

The 98 items required a response to indicate the degree of opportunity to develop the potential leadership skills and were submitted

to various statistical treatments. The mean scores reported by respondents of the six groups were used to determine common potential leadership skills. The t test was used to indicate significant differences between the responses by state advisers and state presidents regarding their perceptions of the opportunity to develop potential leadership skills.

The independent t test was used to compare the perceptions of state advisers and state presidents. The Cochran's C test was used to determine homogeneity of variance for each item based on responses by the six groups. For those items which were homogeneous, the ANOVA was used to test for significant differences. When the ANOVA yielded a significant F ratio, the Scheffé's multiple comparison test was used to determine where the significant differences occurred within the six groups.

For those items which the Cochran's C test indicated nonhomogeneity significant at .05 level, the Kruskal-Wallis ANOVA was used. As a follow-up for those items with a significant Kruskal-Wallis value, the Gibbons' Multiple Comparison procedure was used for further analyses.

Leadership Skills

A list of 98 potential leadership skills was verified by the jury of experts. The final data collection instrument included the 98 potential leadership skills.

Common Leadership Skills

Eighty-five leadership skills were determined to be common to vocational student organizations. Thirteen of the 98 potential

leadership skills failed to achieve the value (4.0 mean score) necessary to be declared common by the respondent groups.

Of the 600 combined responses by state advisers and state presidents, 474 revealed items with mean scores of 5.0 and above. Eighty-eight responses indicate mean values of 4.0 to 4.9, and 27 responses were 3.0 to 3.9 mean values. In examining overall mean scores reported by state presidents and state advisers for the 98 potential leadership skills, 92 of the items were rated higher by state presidents.

Significant Differences in the Opportunity to Develop Leadership Skills

The independent *t* test comparisons of mean scores for each potential leadership skill indicated significant differences in the responses by state advisers and state presidents regarding their perceptions of the opportunity to develop potential leadership skills. A second comparison was made of mean scores for each of the six groups on those items which were common. For those 53 items which were homogeneous according to Cochran's *C* test, the ANOVA was used to test for significant differences. Thirty-six items indicated a significant *F* ratio. To determine where those significant differences occurred, the data were subjected to the Scheffé's multiple comparison test. Sixteen of the 35 items with significant *F* ratios did not reveal any significant differences when subjected to the Scheffé's test. For those 32 items which were lacking in homogeneity according to Cochran's *C* test, the Kruskal-Wallis ANOVA was used to determine significant differences. This procedure indicated significant chi-square values

(at the .05 level) for 25 items. These data were further analyzed by the Gibbons' multiple comparison procedure which yielded significant differences.

II. CONCLUSIONS

Generalizations are based on data which are both valid and reliable. Identification of the leadership skills was based on the expert opinions of the national executive directors of vocational student organizations. High reliability is evidenced by the value (.973) obtained by the Cronbach Alpha procedure. Respondents (state advisers and state presidents) were persons who should be most cognizant of leadership development opportunities available through vocational student organizations. State advisers act in a supervisory capacity for statewide coordination of programs. State presidents participate in activities of the organization at the local, regional, state, and often at the national levels. Therefore, the following conclusions can be supported on the basis of this research.

1. The six vocational student organizations provide opportunities which lead to the development of leadership skills.

2. Leadership abilities may be developed by students without participating in competitive events.

3. State presidents of vocational student organizations see a greater opportunity to develop the leadership skills than do state advisers.

4. Differences in the degree of opportunity to develop leadership skills vary among the six organizations.

5. Vocational student organizations are an important aspect of vocational education.

III. RECOMMENDATIONS

On the basis of the research findings of this study, the following recommendations are presented:

1. The leadership skills having a mean score of 5 and above should provide direction for structuring activities within vocational student organizations.

2. Persons responsible for teacher education programs should give consideration to the development of competencies needed by advisers to vocational student organizations especially as it relates to the 85 leadership skills common to the six vocational student organizations.

3. Student teachers should be placed in centers where they can observe and participate in vocational student organizations which provide opportunities for leadership development as an integral part of the vocational program.

4. Education programs of both a pre-service and an in-service nature for advisers of vocational student organizations should be coordinated with teacher education institutions and state level supervisors of vocational education.

5. Further research should be conducted to validate additional contributions of vocational student organizations.

6. A survey should be conducted for comparisons of activities of FFA with those of other groups to determine why FFA respondents see greater opportunities for leadership development.

7. FFA representatives should be used as resource persons to other vocational student organizations to assist in the development of activities which contribute to the development of leadership skills.

IV. DISCUSSION OF THE RESULTS

Based on the findings of this study and the comprehensive investigation of leadership development within vocational student organizations, the researcher offers the following implications for vocational education. There is evidence that vocational student organizations do provide numerous opportunities for development of leadership skills. The study shows that students, as represented by state presidents, are clearly aware of these opportunities. In a like manner, the state advisers see similar opportunities. Leaders in vocational education should move forward in supporting the expansion of membership on these vital organizations and the integration of curricular activities which lead to the development of leadership abilities as well as other attributes.

Vocational student organizations provide other learning experiences that merit attention in addition to opportunities for leadership development. Certainly, the influence of vocational student organizations extends beyond leadership development. There is a need to determine what additional contributions these organizations offer to the students in vocational education. It also seems apparent that studies of the perceptions of local chapter officers and advisers could contribute to our data base and further our knowledge of the importance of vocational

student organizations. The instrument validated in the current study ought to prove useful in this latter effort and could provide a basis for possible additional study of the former suggestion. The continuation and expansion of vocational student organizations may be dependent on research which verifies the contributions of these organizations.

The differences in perceptions between state presidents and state advisers also raises some interesting questions. A need exists to examine why these significant differences occurred. Is it possible that those providing adult leadership at the state level have not maintained an accurate picture of what is now occurring at the local level? If that is in fact true, steps need to be taken to insure more accurate perceptions of these dynamic organizations. If it is not true, the reasons for these differences need to be identified. It will be at that point that specific recommendations, based on empirical evidence, can be formulated for these adult leaders. The intended impact of such activity is to increase opportunities and options for students of vocational education.

The role of the teacher/coordinator in vocational education programs is that of adviser who offers guidance to the student organization. The fact that vocational student organizations have identified common leadership skills may be a step in the direction of determining other commonalities. These common contributions should be incorporated into pre-service and in-service educational activities for advisers. Perhaps this approach could supply the impetus for promoting unity in vocational education service areas. In any event, teachers must be

adequately prepared to assume the role of adviser to a vocational student organization. The fact that leadership development is a primary focus of vocational student organizations should justify the existence of vocational student organizations.

Although the FHA organization does not provide opportunities for competitive events, it does emphasize leadership development as a purpose of the organization. The responses of the FHA members allows one to conclude that leadership development can be achieved without competitive activities. Each of the other organizations relies heavily on competitive events as a primary method for leadership development.

These organizations may want to examine alternatives to competitive events as a means of providing increased opportunities for all members to develop their leadership ability.

VICA has problems which are unique to that organization. One problem is that the organization is young; therefore, it does not have a long experience base on which to rely. Another area is that teachers which serve as instructors to the classes associated with VICA organization are selected because of their expertise in a particular field and often have not completed a teacher education program.

The teacher education workshops sponsored by National VICA have had a positive impact on teacher educators. They have motivated teachers' educators to stimulate ideas and promote techniques which assist classroom teachers to incorporate VICA into classroom activities.

In-service education for teachers and teacher educators is one means of furthering the influence of vocational student organizations together with opportunities for students. The positive impact of the

workshops sponsored by National VICA ought to be a basis for examining it as a model for such in-service education.

Vocational student organizations clearly provide students with opportunities to develop their capacity for exercising leadership. Given the level of student participation in these organizations, state and national organizations need to direct attention to increasing the level of student participation. The suggestions presented in this study offer alternatives which can further this goal.

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APPENDICES

APPENDIX A

JURY OF EXPERTS

JURY OF EXPERTS

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APPENDIX B

INITIAL LIST OF POTENTIAL LEADERSHIP SKILLS OF VOCATIONAL STUDENT ORGANIZATIONS

LIST OF POTENTIAL LEADERSHIP SKILLS OF
VOCATIONAL STUDENT ORGANIZATIONS

The leadership skills listed below have been derived from a review of literature and related research. Please respond to each item by indicating either "YES" or "NO" to identify the leadership skills that are part of the organization that you represent.

These leadership skills are not arranged in any sequence. Each item stands alone.

DIRECTIONS: Please consider each item on the list and:
(1) Circle the YES if the item on the list is a potential leadership skill of the vocational student organization that you represent;
(2) Circle the NO if the item is not a potential leadership skill of the vocational student organization that you represent.

The information that you supply is completely confidential.

Example: 1. identify personal goals YES NO

POTENTIAL LEADERSHIP SKILLS OF MY VOCATIONAL STUDENT ORGANIZATION

1. prepare for employment YES NO
2. prepare notebook verification of accomplishments YES NO
3. lead group discussion YES NO
4. display a cooperative attitude YES NO
5. prepare a speech YES NO
6. examine personal values YES NO
7. plan chapter activities YES NO
8. demonstrate the ability to be a follower YES NO
9. communicate well with groups YES NO
10. exhibit a project in a fair YES NO

11.	guide others to productive activity	YES	NO
12.	recite the motto of the organization	YES	NO
13.	complete projects	YES	NO
14.	demonstrate proficiency in occupational terminology	YES	NO
15.	demonstrate excellence in skill training	YES	NO
16.	attend meetings regularly	YES	NO
17.	earn recognition through achievements	YES	NO
18.	participate in occupational skill events	YES	NO
19.	participate in state activities	YES	NO
20.	explore occupational opportunities	YES	NO
21.	plan chapter programs	YES	NO
22.	supervise children's activities	YES	NO
23.	participate in community projects	YES	NO
24.	demonstrate good human relations	YES	NO
25.	conduct chapter activities	YES	NO
26.	organize chapter events	YES	NO
27.	relate well with adults	YES	NO
28.	interact with peers	YES	NO
29.	prepare a newspaper article	YES	NO
30.	assist in fund raising projects	YES	NO
31.	prepare a video tape production	YES	NO
32.	develop material for the news media	YES	NO
33.	evaluate chapter progress	YES	NO
34.	prepare a radio broadcast	YES	NO

35.	present a speech	YES	NO
36.	perform volunteer work	YES	NO
37.	develop occupational skills	YES	NO
38.	cope effectively in a variety of situations	YES	NO
39.	perform committee assignments	YES	NO
40.	give constructive criticism	YES	NO
41.	speak opinion openly	YES	NO
42.	respect rights of others	YES	NO
43.	uphold majority decision	YES	NO
44.	report information accurately	YES	NO
45.	promote worthwhile activities	YES	NO
46.	participate in public speaking contests	YES	NO
47.	participate in state convention	YES	NO
48.	participate in job interview contest	YES	NO
49.	perform role in opening ceremony	YES	NO
50.	accept office in organization	YES	NO
51.	improve welfare of the community	YES	NO
52.	prepare for leadership role beyond the vocational organization	YES	NO
53.	demonstrate the correct procedures for conducting the organization's business	YES	NO
54.	respect the property of others	YES	NO
55.	make intelligent decisions	YES	NO
56.	seek opinions of others	YES	NO

57.	respect individuality	YES	NO
58.	assume chairperson of a committee	YES	NO
59.	strive for personal development	YES	NO
60.	assist others in career decisions	YES	NO
61.	perform role in closing ceremony	YES	NO
62.	express concern for needs of aging and senior citizens	YES	NO
63.	explain emblem of organization	YES	NO
64.	promote youth/adult interaction	YES	NO
65.	acquire self-confidence	YES	NO
66.	develop salable personality to complement salable skill	YES	NO
67.	assume responsibility for personal behavior	YES	NO
68.	prepare adequate records	YES	NO
69.	demonstrate decision-making skills	YES	NO
70.	use parliamentary procedures	YES	NO
71.	demonstrate excellence in accomplishments	YES	NO
72.	explain the purposes of the organization	YES	NO
73.	list the fundamentals of the American democracy	YES	NO
74.	participate in projects sponsored by the organization	YES	NO
75.	develop desirable personal attributes i.e., dependability, responsibility, and initiative	YES	NO
76.	participates as a team member	YES	NO
77.	listen attentively	YES	NO
78.	communicate effectively with adults	YES	NO
79.	participate in the degree program	YES	NO

80.	participate in a leadership conference	YES	NO
81.	earn recognition	YES	NO
82.	arrange an educational tour	YES	NO
83.	participate in camp	YES	NO
84.	participate in safety program	YES	NO
85.	participate in self-improvement activities	YES	NO
86.	increase awareness of multiple role of men and women	YES	NO
87.	participate in national convention	YES	NO
88.	perform role playing activities	YES	NO
89.	participate in competitive events	YES	NO
90.	strive to perform to the best of one's ability	YES	NO
91.	demonstrate problem-solving ability	YES	NO
92.	improve home life	YES	NO
93.	encourage recreational activities	YES	NO
94.	establish realistic occupational goals	YES	NO
95.	stimulate desire for learning	YES	NO
96.	develop occupational competence	YES	NO

Please list any additional leadership skills developed through your vocational student organization:

1. _____
2. _____
3. _____
4. _____
5. _____

(You may add as many as you wish. Use the back of the page if necessary.)

APPENDIX C

REACTIONS TO THE INITIAL LIST OF POTENTIAL LEADERSHIP SKILLS BY MEMBERS OF THE JURY OF EXPERTS

RESPONSES OF THE JURY OF EXPERTS TO THE LIST OF POTENTIAL LEADERSHIP SKILLS OF VOCATIONAL STUDENT ORGANIZATIONS

Item Number	Responses Yes	No	None
1	6		
2	5	1	
3	6		
4	6		
5	6		
6	5		1
7	6		
8	6		
9	6		
10	5	1	
11	6		
12	6		
13	6		
14	4	1	1
15	4	1	1
16	4	1	1
17	6		
18	5	1	
19	6		
20	5	1	
21	6		
22	4	2	
23	5	1	
24	6		
25	6		
26	6		
27	6		
28	6		
29	4	2	
30	4	1	
31	3	3	
32	4	2	
33	6		
34	3	3	
35	6		
36	5	1	
37	5	1	
38	5	1	
39	5	1	
40	6		
41	5	1	
42	6		
43	5	1	
44	5	1	
45	5	1	

Item Number	Responses Yes	No	None
46	4	2	
47	6		
48	5	1	
49	6		
50	6		
51	5	1	
52	6		
53	5	1	
54	5	1	
55	5	1	
56	6		
57	6		
58	5	1	
59	6		
60	6		
61	6		
62	3	2	
63	5	1	
64	5	1	
65	4	2	
67	5	1	
68	5	1	
69	6		
70	5	1	
71	5	1	
72	5	1	
73	4	2	
74	5	1	
75	6		
76	6		
77	5	1	
78	4		1
79	2	1	3
80	6		
81	5	1	
82	5		1
83	4	1	1
84	3	1	2
85	5	1	
86	4	1	1
87	4	1	1
88	3	2	1
89	4	1	1
90	4	1	
91	6		
92	5	1	
93	5	1	
94	6		
95	5	1	
96	6		

POTENTIAL LEADERSHIP SKILLS WHICH WERE ELIMINATED BY THE JURY OF EXPERTS

Item		Responses Yes	No	Did Not Respond
31.	Prepare a video tape production	3	3	
34.	Prepare a radio broadcast	3	3	
62.	Express concern for needs of aging and senior citizens	3	2	1
79.	Participate in the degree program	2	1	2
88.	Perform role playing activities	3	2	1

APPENDIX D

ADDITIONAL POTENTIAL LEADERSHIP SKILLS OF VOCATIONAL STUDENT ORGANIZATIONS SUGGESTED BY MEMBERS OF THE JURY OF EXPERTS AND THEIR RESPONSES

ADDITIONAL POTENTIAL LEADERSHIP SKILLS OF
VOCATIONAL STUDENT ORGANIZATIONS

The leadership skills listed below have been derived from members of the Jury of Experts. Please respond to each item by indicating either "YES" or "NO" to identify the leadership skills that are part of the organization that you represent.

These leadership skills are not arranged in any sequence. Each item stands alone.

DIRECTIONS: Please consider each item on the list and
(1) Circle the YES if the item on the list is a potential leadership skill of the vocational student organization that you represent;
(2) Circle the NO if the item is not a potential leadership skill of the vocational student organization that you represent.

The information that you supply is completely confidential.

Example: 1. identify personal goals YES NO

POTENTIAL LEADERSHIP SKILLS OF MY VOCATIONAL STUDENT ORGANIZATION

1.	serve as a peer educator	YES (6)	NO
2.	plan personal goals	YES (6)	NO
3.	achieve personal goals	YES (6)	NO
4.	develop self-understanding	YES (6)	NO
5.	demonstrate effective ways of working with groups	YES (6)	NO
6.	communicate the relationship of the vocational student organization to the curriculum and program	YES (5) (1 No Response)	NO
7.	strengthen relationships among family members	YES (4)	NO (2)

APPENDIX E

THE QUESTIONNAIRE: POTENTIAL LEADERSHIP SKILLS OF VOCATIONAL STUDENT ORGANIZATIONS

POTENTIAL LEADERSHIP SKILLS OF VOCATIONAL STUDENT ORGANIZATIONS

Instructions

The purpose of this research is to determine the potential leadership skills in your vocational student organization. Please indicate the extent that the opportunity to develop each leadership skill exists in the vocational student organization that you represent. You are asked to draw a circle around the number after each leadership skill that best indicates the extent of your agreement or disagreement with that statement.

These leadership skills are not arranged in any sequence. Each item stands alone. The information you supply is completely confidential.

Response Scale

No opportunity exists = 1

Almost never does an opportunity exist = 2

Rarely does an opportunity exist = 3

Occasionally an opportunity exists = 4

Frequently an opportunity exists = 5

Almost always an opportunity exists = 6

Example

1. Identify personal goals 1 2 3 4 5 6

Potential Leadership Skills of Vocational Student Organizations

1. Explore occupational opportunities 1 2 3 4 5 6

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2.	Develop desirable personal attributes:						
	dependability	1	2	3	4	5	6
	responsibility	1	2	3	4	5	6
	initiative	1	2	3	4	5	6
3.	Display a cooperative attitude	1	2	3	4	5	6
4.	Express openly one's opinion	1	2	3	4	5	6
5.	Achieve personal goals	1	2	3	4	5	6
6.	Establish realistic occupational goals	1	2	3	4	5	6
7.	Plan chapter activities	1	2	3	4	5	6
8.	Organize chapter events	1	2	3	4	5	6
9.	Earn recognition	1	2	3	4	5	6
10.	Respect the property of others	1	2	3	4	5	6
11.	Communicate the relationship of the vocational student organization to the curriculum and vocational education	1	2	3	4	5	6
12.	Promote youth/adult interaction	1	2	3	4	5	6
13.	Complete projects started	1	2	3	4	5	6
14.	Plan chapter programs	1	2	3	4	5	6
15.	Strengthen relationships among family members	1	2	3	4	5	6
16.	Cope effectively in a variety of situations	1	2	3	4	5	6
17.	Communicate well with groups	1	2	3	4	5	6
18.	Earn recognition through chapter achievements	1	2	3	4	5	6
19.	Evaluate chapter progress	1	2	3	4	5	6
20.	Strive to perform to the best of one's ability	1	2	3	4	5	6
21.	Participate in public speaking contests	1	2	3	4	5	6
22.	Demonstrate proficiency in occupational terminology	1	2	3	4	5	6

Response Scale:

No opportunity = 1	Occasionally = 4
Almost never = 2	Frequently = 5
Rarely = 3	Almost always = 6

23.	Develop materials for the news media	1	2	3	4	5	6
24.	Demonstrate ability to be a follower	1	2	3	4	5	6
25.	Respect individuality	1	2	3	4	5	6
26.	Demonstrate problem-solving ability	1	2	3	4	5	6
27.	Prepare adequate records	1	2	3	4	5	6
28.	Present a speech	1	2	3	4	5	6
29.	Assist in fund-raising projects	1	2	3	4	5	6
30.	Prepare for leadership role beyond the vocational student organization	1	2	3	4	5	6
31.	Demonstrate effective ways of working with groups	1	2	3	4	5	6
32.	Encourage recreational and leisure activities for groups and individuals	1	2	3	4	5	6
33.	Attend chapter meetings regularly	1	2	3	4	5	6
34.	Participate in safety program	1	2	3	4	5	6
35.	Participate in occupational skill events	1	2	3	4	5	6
36.	Lead group discussions	1	2	3	4	5	6
37.	Develop occupational competence	1	2	3	4	5	6
38.	Participate in projects sponsored by the organization	1	2	3	4	5	6
39.	Conduct chapter activities	1	2	3	4	5	6
40.	Participate in job interview contest	1	2	3	4	5	6
41.	Serve as a peer educator	1	2	3	4	5	6
42.	Interact with peers	1	2	3	4	5	6

Response Scale:

No opportunity = 1	Occasionally = 4
Almost never = 2	Frequently = 5
Rarely = 3	Almost always = 6

43.	Explain the meaning of the emblem of the organization	1	2	3	4	5	6
44.	Make intelligent decisions	1	2	3	4	5	6
45.	Explain the purposes of the organization	1	2	3	4	5	6
46.	Uphold the majority decision	1	2	3	4	5	6
47.	Guide others to productive activity	1	2	3	4	5	6
48.	Perform role in opening ceremony	1	2	3	4	5	6
49.	Communicate effectively with adults	1	2	3	4	5	6
50.	Supervise children's activities	1	2	3	4	5	6
51.	Assist others in career decisions	1	2	3	4	5	6
52.	Participate in state activities of the organization	1	2	3	4	5	6
53.	Acquire self-confidence	1	2	3	4	5	6
54.	Develop salable personality to complement salable skill	1	2	3	4	5	6
55.	Demonstrate good human relations techniques in a variety of situations	1	2	3	4	5	6
56.	Exhibit a project in a fair	1	2	3	4	5	6
57.	Use correct parliamentary procedures	1	2	3	4	5	6
58.	Assume chairperson role of a committee	1	2	3	4	5	6
59.	Accept an office in the organization	1	2	3	4	5	6
60.	Stimulate the desire for learning	1	2	3	4	5	6
61.	Plan activities to help reach personal goals	1	2	3	4	5	6
62.	Improve home life	1	2	3	4	5	6

Response Scale:

No opportunity = 1	Occasionally = 4
Almost never = 2	Frequently = 5
Rarely = 3	Almost always = 6

63.	Give constructive criticism	1	2	3	4	5	6
64.	Demonstrate the correct procedures for conducting the organization's business	1	2	3	4	5	6
65.	Participate as a team member	1	2	3	4	5	6
66.	List the fundamentals of the American democracy	1	2	3	4	5	6
67.	Arrange an educational tour	1	2	3	4	5	6
68.	Participate in community projects	1	2	3	4	5	6
69.	Prepare a newspaper article	1	2	3	4	5	6
70.	Listen attentively	1	2	3	4	5	6
71.	Participate in the national convention	1	2	3	4	5	6
72.	Participate in the state convention	1	2	3	4	5	6
73.	Prepare a speech	1	2	3	4	5	6
74.	Prepare for employment	1	2	3	4	5	6
75.	Demonstrate decision-making skills	1	2	3	4	5	6
76.	Improve the welfare of the community	1	2	3	4	5	6
77.	Participate in competitive events	1	2	3	4	5	6
78.	Increase awareness of multiple role of men and women	1	2	3	4	5	6
79.	Examine personal values	1	2	3	4	5	6
80.	Participate in organization's camp	1	2	3	4	5	6
81.	Strive for personal development	1	2	3	4	5	6
82.	Perform volunteer work	1	2	3	4	5	6

Response Scale

No opportunity = 1	Occasionally = 4
Almost never = 2	Frequently = 5
Rarely = 3	Almost always = 6

83.	Promote worthwhile activities	1	2	3	4	5	6
84.	Participate in a leadership conference	1	2	3	4	5	6
85.	Recite the motto of the organization	1	2	3	4	5	6
86.	Relate well to adults	1	2	3	4	5	6
87.	Perform role in closing ceremony	1	2	3	4	5	6
88.	Develop self-understanding	1	2	3	4	5	6
89.	Participate in self-improvement activities	1	2	3	4	5	6
90.	Seek opinions of others	1	2	3	4	5	6
91.	Develop occupational skills	1	2	3	4	5	6
92.	Assume responsibility for personal behavior	1	2	3	4	5	6
93.	Perform committee assignments	1	2	3	4	5	6
94.	Respect rights of others	1	2	3	4	5	6
95.	Report information accurately	1	2	3	4	5	6
96.	Demonstrate excellence in accomplishments	1	2	3	4	5	6
97.	Demonstrate excellence in skill training	1	2	3	4	5	6
98.	Prepare notebook verification of accomplishments	1	2	3	4	5	6

APPENDIX F

TRANSMITTAL LETTER TO THE MEMBERS OF THE JURY OF EXPERTS

June 23, 1977

Dear

In an effort to identify the contributions of the vocational student organizations, a research project has been approved to identify the potential leadership skills common to vocational organizations. Your assistance into the initial identification of those leadership skills will be an important contribution to the total project.

Because of your recognized expertise in a vocational student organization, I am requesting that you represent that organization as a member of the jury of experts. Other executive directors of the various vocational student organizations will be asked to also serve as members of the jury of experts. You will be asked to respond to two questionnaires and will be given credit in the research report for your contributions.

A review of the literature reveals that there is a limited amount of research relating to vocational student organizations. This study is designed to identify potential leadership skills and thereby reveal information about the nature of the vocational student organizations. The study will be under the direction of Dr. Melvin Miller, Chairman of the Vocational-Technical Education Department at the University of Tennessee, Knoxville.

Your willingness to participate in this project is of crucial importance to the vocational students in all service areas since it will provide a basis for educational programs focused on leadership skills affecting the youth of America.

Your assistance with the following two items will be appreciated:

1. By signing and returning the agreement form which is enclosed, you agree to serve as a member of the jury of experts.
2. I am requesting that you furnish me with a list of state presidents and state advisers of your organizations. These people will be asked to indicate their perceptions of the potential leadership skills of the organization.

Sincerely,

Joyce Bales

Enclosure

SECOND LETTER TO JURY OF EXPERTS

_____
_____
_____
_____

Dear _____:

Thank you for the mailing list of state advisers of your vocational student organization. As an expert on vocational student organizations, your contribution will be valuable.

As explained before, the purpose of this study is to identify leadership skills common to and developed through the various student organizations. You are being asked to assist in the development of the list of potential leadership skills by responding to the enclosed list of leadership skills. Directions should be self-explanatory. You are encouraged to add other pertinent leadership skills to this study. These leadership skills are not arranged in any sequence. Each item should stand alone. Your input is greatly appreciated.

If possible, please complete the checklist and return as soon as possible in the self-addressed envelope. It is highly desirable that all information be mailed immediately.

Again, let me express my sincere thanks for your cooperation and for your willingness to serve on the Jury of Experts. The probes should not be excessively time consuming. If you desire a copy of the findings of this research project, please complete the enclosed card and return it with the list of the leadership skills. I will be happy to forward you a copy of the findings when the project is completed.

Sincerely,

Joyce Ford Bales

Enclosures

APPENDIX G

STATEMENT OF ASSURANCE OF CONFIDENTIALITY

August 1, 1977

ASSURANCE OF CONFIDENTIALITY

Dear Respondent:

All research at The University of Tennessee must comply with standards established by Federal Laws concerning the protection of human subjects which specify that certain conditions have been met. This is your assurance by the researcher that your reply to the questionnaire will be treated confidentially and that all other requirements for protecting respondents will be met.

Joyce Bales
Researcher

APPENDIX H

CORRESPONDENCE WITH RESPONDENTS

January 3, 1978

Dear State Adviser:

A national project is in progress designed to reveal information about the vocational student organizations. Because of your leadership position and involvement in a vocational student organization, you have been selected to participate in this survey.

Your decision whether or not to participate will not prejudice your future relations with The University of Tennessee. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without prejudice. By completing and returning the enclosed questionnaire, you indicate that you agree to participate in the study.

As you react to the questionnaire, your responses should reveal your perceptions about the opportunities available through participation in the vocational student organization of which you are Adviser. The instrument is designed to identify potential leadership skills common to and developed through the various vocational student organizations. It was developed in consultation with the National Advisers of the vocational student organizations.

No attempt will be made to identify you. All data collected will be confidential and will remain completely anonymous. The data collected from the questionnaire will be summarized by groups and reported in categories. The code on the questionnaire is to assist me in follow-up procedures. The completion of the instrument should take 5-10 minutes.

Your cooperation in completing the questionnaire will contribute to the success of this research and reveal valuable information about vocational student organizations. I appreciate your participation. Please respond to the questionnaire and return today in the enclosed self-addressed, stamped envelope.

If you would like to have a copy of the research findings, please print your mailing address on the enclosed card and return with the completed questionnaire. The card will be used as a shipping label.

Sincerely,

Joyce Bales
Project Director

Enclosures: questionnaire
self-addressed, stamped envelope
address card

January 3, 1978

Dear State President:

A national project is in progress to reveal information about the vocational student organizations. Because of your leadership position in a vocational student organization, you have been selected to participate in this survey.

To assist in identifying potential leadership skills common to and developed through the various vocational student organizations, please respond to the enclosed questionnaire and return in the convenient, self-addressed, stamped envelope. Your responses should reflect your perceptions about the opportunities available through participation in the vocational student organization of which you are President.

No attempt will be made to identify you. All data collected will be confidential and will remain completely anonymous. The data will be summarized by groups and individual responses will not be reported. The code on the questionnaire is to assist me in follow-up procedures.

The study involves an instrument developed in consultation with the National Advisers to the vocational student organizations. The completion of the questionnaire should take 5 minutes.

Your cooperation in completing the questionnaire will contribute to the success of this research and reveal valuable information about vocational student organizations.

Sincerely,

Joyce Bales
Project Director

Enclosures: questionnaire
self-addressed, stamped envelope

APPENDIX I

FOLLOW-UP LETTER TO RESPONDENTS

March 23, 1978

Dear State Adviser:

Several days ago, you should have received a questionnaire concerning potential leadership skills of vocational student organizations. Only a few replies have not been received.

Please take a few minutes from your busy schedule and complete the questionnaire. Also indicate the name and address of the State President on the back of the questionnaire and return to me today. The information that only you can provide can serve to strengthen the student organizations in vocational education.

Your kind assistance is greatly appreciated.

Sincerely,

Joyce Bales
Project Director
Route 3, Box 275
Greeneville, Tn. 37743

March 23, 1978

Dear State President:

Several days ago, you should have received a questionnaire concerning potential leadership skills of vocational student organizations. Some replies have not been received from your organization.

Your response is vital to the success of this research project. The information that only you can supply can strengthen the role of the student organizations in vocational education.

Please take a few minutes from your busy schedule and complete the questionnaire today. Your assistance is greatly appreciated.

Sincerely,

Joyce Bales
Route 3, Box 275
Greeneville, Tn. 37743

APPENDIX J

RESPONDENT RATING OF POTENTIAL LEADERSHIP SKILLS

(ABSOLUTE FREQUENCIES)

TABLE XIV

Respondent Rating of Potential Leadership Skills

Absolute Frequencies
(n = 342)

Potential Leadership Skills	No Response 0	No Opportunity 1	Almost Never 2	Rarely 3	Occasionally 4	Frequently 5	Almost Always 6	Total Weight	Mean Score
1. Explore occupational opportunities	1		3	15	54	122	147	1759	5.2
2. Develop desirable personal attributes: dependability					12	77	253	1951	5.7
responsibility				3	21	84	232	1905	5.6
initiative					28	102	212	1894	5.6
3. Display a cooperative attitude		1	0	9	3	114	181	1832	5.4
4. Express openly one's opinion				3	37	118	184	1851	5.4
5. Achieve personal goals			4	15	54	143	126	1740	5.1
6. Establish realistic occupational goals				7	30	96	209	1875	5.5
7. Plan chapter activities				5	40	79	218	1901	5.6
8. Organize chapter events		3	1	8	27	92	211	1785	5.3

TABLE XIV (Continued)

	Potential Leadership Skills	No Response 0	No Opportunity 1	Almost Never 2	Rarely 3	Occasionally 4	Frequently 5	Almost Always 6	Total Weight	Mean Score
9.	Earn recognition				1	25	98	218	1901	5.6
10.	Respect the property of others	4	1	1	10	46	112	168	1785	5.3
11.	Communicate the relationship of the vocational student organization to the curriculum and vocational education	4	1	3	14	62	121	137	1724	5.1
12.	Promote youth/adult interaction				11	67	127	137	1758	5.1
13.	Complete projects started			1	1	17	111	212	1900	5.6
14.	Plan chapter programs				2	44	123	173	1835	5.4
15.	Strengthen the relationships among family members	3	3	4	47	103	100	82	1556	4.6
16.	Cope effectively in a variety of situations			2	7	68	156	109	1731	5.1
17.	Communicate well with groups	1			2	56	121	162	1807	5.3
18.	Earn recognition through chapter achievements		1	2	16	33	97	193	1828	5.3

TABLE XIV (Continued)

	Potential Leadership Skills	No Response 0	No Opportunity 1	Almost Never 2	Rarely 3	Occasionally 4	Frequently 5	Almost Always 6	Total Weight	Mean Score
19.	Evaluate chapter progress		1	2	26	57	138	118	1709	5.0
20.	Strive to perform to the best of one's ability	1			5	23	96	217	1889	5.5
21.	Participate in public speaking contests	3	34	25	15	74	74	117	1497	4.4
22.	Demonstrate proficiency in occupational terminology	2	9	10	28	93	120	80	1565	4.6
23.	Develop materials for the news media			9	24	131	90	88	1592.0	4.7
24.	Demonstrate ability to be a follower			7	3	52	122	156	1777.0	5.2
25.	Respect individuality				6	45	101	190	1843.0	5.4
26.	Demonstrate problem-solving ability	2			9	68	143	120	1734.0	5.1
27.	Prepare adequate records	2	1		13	93	114	119	1696.0	5.0
28.	Present a speech		1	7	19	8 86	99	130	1691.0	4.9

TABLE XIV (Continued)

Potential Leadership Skills	No Response 0	No Opportunity 1	Almost Never 2	Rarely 3	Occasionally 4	Frequently 5	Almost Always 6	Total Weight	Mean Score
29. Assist in fund-raising projects		1		3	37	112	189	1852.0	5.4
30. Prepare for leadership role beyond the vocational student organization	1		1	10	43	108	179	1818.0	5.3
31. Demonstrate effective ways of working with groups				11	38	139	154	1804.0	5.3
32. Encourage recreational and leisure activities for groups and individuals			1	18	75	111	137	1733.0	5.1
33. Attend chapter meetings regularly		1	2	8	28	81	222	1878.0	5.5
34. Participate in safety program	2	12	35	64	101	64	64	1382.0	5.1
35. Participate in occupational skill events		21	15	18	56	84	148	1637.0	4.8
36. Lead group discussions			1	15	79	124	123	1721.0	5.0
37. Develop occupational competence		4	6	13	58	111	150	1742.0	5.1
38. Participate in projects sponsored by the organization				2	21	90	229	1914.0	5.6

TABLE XIV (Continued)

	Potential Leadership Skills	No Response 0	No Opportunity 1	Almost Never 2	Rarely 3	Occasionally 4	Frequently 5	Almost Always 6	Total Weight	Mean Score
39.	Conduct chapter activities				6	32	116	118	1854.0	5.4
40.	Participate in job interview contests	2	65	30	23	77	62	83	1310.0	3.9
41.	Serve as a peer educator	1	4	9	41	103	118	66	1543.0	4.5
42.	Interact with peers			2	3	39	95	203	1862.0	5.4
43.	Explain the meaning of the emblem of the organization		1	8	14	90	93	136	1700.0	5.0
44.	Make intelligent decisions				1	30	117	194	1872.0	5.5
45.	Explain the purposes of the organization			1	8	49	121	163	1805.0	5.3
46.	Uphold the majority decision	1		1		33	104	203	1872.0	5.5
47.	Guide others to productive activity		1	1	9	62	142	127	1750.0	5.1
48.	Perform role in opening ceremony		4	8	18	83	84	145	1696.0	5.0
49.	Communicate effectively with adults			2	8	67	134	131	1752.0	5.1
50.	Supervise children's activities	1	17	22	78	102	63	59	1372.0	4.0

TABLE XIV (Continued)

	Potential Leadership Skills	No Response 0	No Opportunity 1	Almost Never 2	Rarely 3	Occasionally 4	Frequently 5	Almost Always 6	Total Weight	Mean Score
51.	Assist others in career decisions		3	17	63	132	68	59	1448.0	4.2
52.	Participate in state activities of the organization	1		1	4	54	83	199	1839.0	5.4
53.	Acquire self-confidence	2			3	21	84	232	1905.0	5.6
54.	Develop salable personality to complement salable skill	1	2	6	7	60	123	143	1748.0	5.2
55.	Demonstrate good human relations techniques in a variety of situations			1	8	48	139	146	1789.0	5.2
56.	Exhibit a project in a fair	2	19	30	57	86	64	84	1418.0	4.2
57.	Use correct parliamentary procedures		3		14	71	97	157	1756.0	5.1
58.	Assume chairperson role of committee			2	6	64	123	147	1775.0	5.2
59.	Accept an office in the organization				3	56	116	167	1815.0	5.3
60.	Stimulate the desire for learning	1		3	10	51	129	148	1773.0	5.2
61.	Plan activities to help reach personal goals			2	14	50	133	143	1769.0	5.2
62.	Improve home life		7	13	33	71	94	124	1630.0	4.8

TABLE XIV (Continued)

	Potential Leadership Skills	No Response 0	No Opportunity 1	Almost Never 2	Rarely 3	Occasionally 4	Frequently 5	Almost Always 6	Total Weight	Mean Score
63.	Give constructive criticism	1		2	10	84	126	119	1714.0	5.0
64.	Demonstrate the correct procedures for conducting the organization's business			1	14	60	117	150	1769.0	5.2
65.	Participate as a team member		2	1	4	35	120	180	1836.0	5.4
66.	List the fundamentals of the American democracy	1	10	22	41	122	79	67	1462.0	4.3
67.	Arrange an educational tour	1	14	10	59	108	84	66	1459.0	4.3
68.	Participate in community projects	1	1	1	10	50	120	159	1787.0	5.2
69.	Prepare a newspaper article		2	3	19	114	89	115	1656.0	4.8
70.	Listen attentively		1		3	32	113	193	1861.0	5.4
71.	Participate in the national convention		2	4	33	84	79	140	1680.0	4.9
72.	Participate in the state convention	1		1	4	43	85	208	1859.0	5.5
73.	Prepare a speech		2	4	16	88	95	137	1707.0	5.0
74.	Prepare for employment			5	14	54	94	175	1788.0	5.2

TABLE XIV (Continued)

	Potential Leadership Skills	No Response 0	No Opportunity 1	Almost Never 2	Rarely 3	Occasionally 4	Frequently 5	Almost Always 6	Total Weight	Mean Score
75.	Demonstrate decision-making skills				8	45	117	172	1821.0	5.3
76.	Improve the welfare of the community	2	2	3	19	94	94	128	1679.0	4.9
77.	Participate in competitive events	1	22	17	12	51	63	176	1667.0	4.9
78.	Increase awareness of multiple role of men and women	3		5	24	80	91	139	1691.0	5.0
79.	Examine personal values			1	19	56	103	163	1776.0	5.2
80.	Participate in organization's camp	8	90	10	40	58	48	88	1230.0	3.7
81.	Strive for personal development	1	1		4	36	99	201	1858.0	5.5
82.	Perform volunteer work	1	1	4	12	69	103	152	1748.0	5.2
83.	Promote worthwhile activities	1			1	40	100	200	1863.0	5.5
84.	Participate in a leadership conference				2	55	85	200	1851.0	5.4
85.	Recite the motto of the organization		2	4	26	66	78	166	1738.0	5.1
86.	Relate well to adults	1			9	51	135	146	1782.0	5.2
87.	Perform role in closing ceremony	3	8	11	25	74	69	152	1658.0	4.9

TABLE XIV (Continued)

	Potential Leadership Skills	No Response 0	No Opportunity 1	Almost Never 2	Rarely 3	Occasionally 4	Frequently 5	Almost Always 6	Total Weight	Mean Score
88.	Develop self-understanding	1			8	57	118	158	1790.0	5.3
89.	Participate in self-improvement activities	1			15	43	103	180	1812.0	5.3
90.	Seek opinions of others				5	52	123	162	1810.0	5.3
91.	Develop occupational skills	1	3	2	13	53	88	183	1792.0	5.3
92.	Assume responsibility for personal behavior				1	36	101	214	1876.0	5.5
93.	Perform committee assignments				3	36	132	171	1839.0	5.4
94.	Respect rights of others	1			1	28	100	212	1887.0	5.5
95.	Report information accurately				4	50	126	162	1814.0	5.3
96.	Demonstrate excellence in accomplishments	2	1		4	42	119	174	1820.0	5.4
97.	Demonstrate excellence in skill training	2	4	4	17	55	111	149	1732.0	5.1
98.	Prepare notebook verification	1	10	15	35	95	78	108	1563.0	4.6

APPENDIX K

COMBINED MEAN SCORES OF STATE ADVISERS AND STATE PRESIDENTS

TABLE XV

Combined Mean Scores of State Advisers and State Presidents of Vocational Student Organizations

Item	Leadership Statement	State Advisers Mean Score	State Presidents Mean Score
1	Explore occupational opportunities	5.0551	5.3750
2	Develop desirable personal attributes	5.6797	5.8068
3	Display a cooperative attitude	5.5859	5.4886
4	Express openly one's opinion	5.3594	5.3977
5	Achieve personal goals	5.4531	5.6591
6	Establish realistic occupational goals	4.9609	5.3977
7	Plan chapter activities	5.5234	5.5682
8	Organize chapter events	5.5000	5.5341
9	Earn recognition	5.3281	5.5909
10	Respect the property of others	5.2441	5.3295
11	Communicate the relationship of the vocational student organization to the curriculum and vocational education	5.1040	5.1954
12	Promote youth/adult interaction	5.1653	5.1136
13	Complete projects started	5.4375	5.7500
14	Plan chapter programs	5.3672	5.4545
15	Strengthen relationships among family members	4.8898	4.8409
16	Cope effectively in a variety of situations	5.0938	5.0909
17	Communicate well with groups	5.2047	5.6136
18	Earn recognition through chapter achievements	5.2656	5.4486
19	Evaluate chapter progress	4.9297	5.0682
20	Strive to perform to the best of one's ability	5.4531	5.7701

TABLE XV (Continued)

Item	Leadership Statement	State Advisers Mean Score	State Presidents Mean Score
21	Participate in public speaking contests	4.1575	4.4318
22	Demonstrate proficiency in occupational terminology	4.4766	4.5632
23	Develop materials for the news media	4.6328	4.7273
24	Demonstrate ability to be a follower	5.2222	5.2727
25	Respect individuality	5.3203	5.6023
26	Demonstrate problem-solving ability	5.1181	5.2414
27	Prepare adequate records	4.9449	5.2644
28	Present a speech	4.8359	5.2841
29	Assist in fund-raising projects	5.2813	5.6250
30	Prepare for leadership role beyond the vocational student organization	5.2598	5.5455
31	Demonstrate effective ways of working with groups	5.1875	5.5227
32	Encourage recreational and leisure activities for groups and individuals	5.0703	5.2727
33	Attend chapter meetings regularly	5.4688	5.6477
34	Participate in safety programs	4.3984	4.1512
35	Participate in occupational skill events	4.4375	4.6818
36	Lead group discussions	4.9453	5.2727
37	Develop occupational competence	4.9531	5.0227
38	Participate in projects sponsored by the organization	5.4766	5.7500
39	Conduct chapter activities	5.3984	5.5000
40	Participate in job interview contests	3.5703	3.1591
41	Serve as a peer educator	4.5354	4.6023
42	Interact with peers	5.4375	5.4659
43	Explain the meaning of the emblem of the organization	4.9141	5.5114

TABLE XV (Continued)

Item	Leadership Statement	State Advisers Mean Score	State Presidents Mean Score
44	Make intelligent decisions	5.3438	5.7386
45	Explain the purposes of the organization	5.1563	5.6364
46	Uphold the majority decision	5.4453	5.6897
47	Guide others to productive activity	5.0391	5.5341
48	Perform role in opening ceremony	4.9375	5.5114
49	Communicate effectively with adults	4.9844	5.4886
50	Supervise children's activities	4.2441	4.3750
51	Assist others in career decisions	4.1016	4.5000
52	Participate in state activities of the organization	5.2520	5.6932
53	Acquire self-confidence	5.4603	5.8636
54	Develop salable personality to complement salable skill	4.9453	5.1034
55	Demonstrate good human relations techniques in a variety of situations	5.1797	5.4091
56	Exhibit a project in a fair	4.2283	4.5977
57	Use correct parliamentary procedures	5.0078	5.4886
58	Assume chairperson role of a committee	5.0938	5.4886
59	Accept an office in the organization	5.1563	5.6591
60	Stimulate the desire for learning	5.1172	5.5172
61	Plan activities to help reach personal goals	5.2500	5.6023
62	Improve home life	5.0391	5.3068
63	Give constructive criticism	4.8740	5.2614
64	Demonstrate the correct procedures for conducting the organization's business	5.000	5.4091
65	Participate as a team member	5.2891	5.6250
66.	List the fundamentals of the American democracy	4.1953	4.2414

TABLE XV (Continued)

Item	Leadership Statement	State Advisers Mean Score	State Presidents Mean Score
67	Arrange an educational tour	4.2756	4.4432
68	Participate in community projects	5.3701	5.3864
69	Prepare a newspaper article	4.7813	5.0455
70	Listen attentively	5.3750	5.5341
71	Participate in the national convention	4.6797	5.2386
72	Participate in the state convention	5.3071	5.6705
73	Prepare a speech	4.8203	5.4545
74	Prepare for employment	5.1172	5.3409
75	Demonstrate decision-making skills	5.2891	5.6023
76	Improve the welfare of the community	5.0391	5.1477
77	Participate in competitive events	4.5547	4.7241
78	Increase awareness of multiple role of men and women	4.8810	5.5341
79	Examine personal values	5.2188	5.5909
80	Participate in organization's camp	3.6260	3.9885
81	Strive for personal development	5.4409	5.6477
82	Perform volunteer work	5.2344	5.2841
83	Promote worthwhile activities	5.4252	5.6364
84	Participate in a leadership conference	5.3125	5.5909
85	Recite the motto of the organization	5.0703	5.5568
86	Relate well to adults	5.1968	5.5341
87	Perform role in closing ceremony	4.9375	5.5795
88	Develop self-understanding	5.2500	5.5568
89	Participate in self-improvement activities	5.3516	5.6364
90	Seek opinions of others	5.2422	5.5000
91	Develop occupational skills	5.0313	5.3563
92	Assume responsibility for personal behavior	5.4297	5.6023

TABLE XV (Continued)

Item	Leadership Statement	State Advisers Mean Score	State Presidents Mean Score
93	Perform committee assignments	5.2578	5.6136
94	Respect rights of others	5.4297	5.7356
95	Report information accurately	5.2188	5.5909
96	Demonstrate excellence in accomplishments	5.2598	5.5287
97	Demonstrate excellence in skill training	4.8189	5.2529
98	Prepare notebook verification of accomplishments	4.3594	4.9773

APPENDIX L

t TEST COMPARISONS OF THE MEAN SCORES OF STATE ADVISERS AND STATE PRESIDENTS IN RATING POTENTIAL LEADERSHIP SKILLS OF VOCATIONAL STUDENT ORGANIZATIONS

TABLE XVI

t Test Comparison of the Mean Scores of State Advisers and State Presidents in Rating Potential Leadership Skills of Vocational Student Organizations

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 1					
VICA	4.83	5.31	1.07	.95	-1.39
DECA	5.00	5.17	.82	.79	-0.69
FBLA	5.03	5.14	.98	.93	-0.44
OEA	5.44	5.50	.74	.55	-0.30
FHA	4.82	4.98	1.02	1.00	-0.71
FFA	5.36	5.73	.71	.50	-2.77*
Item: 2a					
VICA	5.59	5.39	.63	.65	0.95
DECA	5.68	5.67	.48	.59	0.08
FBLA	5.72	5.69	.59	.53	0.21
OEA	5.73	5.50	.46	.55	1.00
FHA	5.71	5.88	.55	.40	-1.55
FFA	5.69	5.79	.57	.42	-0.84
Item: 2b					
VICA	5.58	5.53	.69	.71	1.06
DECA	5.55	5.65	.68	.71	.08
FBLA	5.58	5.76	.73	.68	.36
OEA	5.50	5.73	.50	.56	.23
FHA	5.71	5.80	.53	.59	.21
FFA	5.67	5.76	.55	.40	-1.55

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 2c					
VICA	5.54	5.64	.68	.54	-.53
DECA	5.50	5.28	.70	.78	.81
FBLA	5.40	5.50	.74	.55	-.30
OEA	5.71	5.83	.55	.39	1.01
FHA	5.69	5.72	.53	.59	-.21
FFA	5.79	5.74	.82	.41	-.38
Item: 3					
VICA	5.52	5.31	.57	.63	1.06
DECA	5.57	5.56	.69	.71	.08
FBLA	5.59	5.67	.68	.54	-.53
OEA	5.73	4.67	.46	.82	3.85*
FHA	5.64	5.60	.68	.59	.32
FFA	5.51	5.50	.72	.60	.09
Item: 4					
VICA	5.21	5.15	.77	.69	.21
DECA	5.54	5.33	.69	.91	.86
FBLA	5.38	5.28	.75	.70	-.01
OEA	5.20	4.17	1.01	1.84	1.67
FHA	5.49	5.48	.79	.78	.08
FFA	5.39	5.50	.85	.71	-.67
Item: 5					
VICA	5.00	5.08	.76	.76	-.30
DECA	5.18	5.56	.77	.71	1.67
FBLA	5.14	5.14	.83	.83	-.00
OEA	5.67	5.50	.48	.84	.58
FHA	5.62	5.60	.61	.59	.17
FFA	5.51	5.74	.64	.45	-1.82

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p < .05
Item: 6					
VICA	5.00	5.00	.87	.41	.00
DECA	5.00	5.28	.82	.83	-1.12
FBLA	4.86	4.97	.95	.91	-.47
OEA	5.47	5.50	.74	.55	-.10
FHA	4.42	5.05	1.03	.88	-3.00*
FFA	5.36	5.71	.78	.51	-2.42*
Item: 7					
VICA	5.21	5.01	.73	.86	.51
DECA	5.32	5.28	.61	.96	.17
FBLA	5.41	5.56	.78	.69	-.77
OEA	5.60	5.17	.83	1.33	.91
FHA	5.69	5.68	.67	.69	.09
FFA	5.54	5.52	.68	.67	.10
Item: 8					
VICA	5.31	4.92	.66	1.04	1.24
DECA	5.50	5.39	.69	.92	.47
FBLA	5.48	5.61	.74	.65	-.75
OEA	5.47	5.00	.92	1.27	.95
FHA	5.62	5.60	.72	.81	.13
FFA	5.51	5.55	.64	.71	-.23
Item: 9					
VICA	5.45	4.62	.63	1.26	2.26*
DECA	5.54	5.67	.69	.77	-.60
FBLA	5.59	5.53	.63	.65	.36
OEA	5.73	4.67	.59	1.21	2.06
FHA	4.78	5.45	1.35	.82	-2.82*
FFA	5.72	5.86	.51	.35	-1.42

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 10					
VICA	5.11	5.25	.83	.87	-.49
DECA	5.43	5.44	.69	.78	.07
FBLA	5.21	5.14	.92	.91	.31
OEA	5.20	5.33	.94	.52	-.32
FHA	5.29	5.05	.99	1.06	1.07
FFA	5.31	5.60	.73	.70	-1.81
Item: 11					
VICA	4.90	4.92	1.05	1.04	-.08
DECA	5.00	5.28	1.02	.83	-.97
FBLA	5.00	5.03	.76	.88	-.13
OEA	5.36	4.67	.75	.82	1.85
FHA	4.93	5.02	1.03	1.07	-.41
FFA	5.36	5.44	.87	.78	-.43
Item: 12					
VICA	4.93	4.85	.80	1.07	.29
DECA	5.32	5.11	.77	.76	.91
FBLA	5.21	5.11	.82	.95	.43
OEA	5.07	4.67	.70	1.37	.68
FHA	5.31	5.15	.82	.89	.87
FFA	5.18	5.14	.79	.78	.21
Item: 13					
VICA	5.17	5.46	.71	.66	-1.24
DECA	5.64	5.39	.56	.78	1.29
FBLA	5.59	5.56	.50	.56	.23
OEA	5.60	5.50	.51	.84	.34
FHA	5.49	5.70	.82	.56	-1.40
FFA	5.51	5.83	.60	.44	-2.73*

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 14					
VICA	5.10	4.77	.67	.93	1.32
DECA	5.36	5.22	.73	.73	.61
FBLA	5.35	5.44	.67	.65	-.60
OEA	5.40	5.17	.83	.98	.55
FHA	5.56	5.50	.73	.68	.36
FFA	5.33	5.45	.70	.71	-.76
Item: 15					
VICA	4.45	4.31	.91	1.11	.43
DECA	3.86	4.00	.93	1.09	-.48
FBLA	4.29	4.11	1.08	1.26	.57
OEA	4.43	3.33	.65	.52	3.66*
FHA	5.24	5.03	1.00	1.19	.92
FFA	4.97	4.88	.81	.74	.54
Item: 16					
VICA	4.93	4.77	.75	.60	.68
DECA	5.11	5.06	.63	1.06	.19
FBLA	4.97	5.03	.94	.77	-.19
OEA	5.20	4.50	.68	1.38	1.19
FHA	5.18	5.10	.86	.93	.40
FFA	5.08	5.17	.24	.66	-.58
Item: 17					
VICA	5.03	5.16	.78	.69	-.48
DECA	5.14	5.39	.71	.78	-1.11
FBLA	5.00	5.25	.85	.81	-1.22
OEA	5.40	5.83	.63	.41	-1.54
FHA	5.14	5.55	.91	.68	-2.35*
FFA	5.33	5.64	.66	.53	-2.33*

TABLE XVI (Continued)

Groups	Means		Standard Deviation		
	SA	SP	SA	SP	*p ≤ .05
Item: 18					
VICA	5.21	5.46	.94	.78	-.85
DECA	5.36	5.33	.68	.91	.10
FBLA	5.14	5.42	.95	.84	-1.25
OEA	5.80	5.50	.41	.84	.84
FHA	4.84	5.15	1.19	1.10	-1.23
FFA	5.59	5.81	.64	.55	-1.66
Item: 19					
VICA	4.79	4.77	1.01	1.01	.07
DECA	5.07	5.28	.90	1.02	-.72
FBLA	5.10	4.92	.90	.87	.85
OEA	4.93	4.67	.80	1.03	.64
FHA	5.0	4.8	1.09	1.22	.62
FFA	5.0	5.4	.80	.66	2.35*
Item: 20					
VICA	5.35	5.31	.67	.63	.17
DECA	5.50	5.56	.58	.71	-.29
FBLA	5.45	5.47	.83	.70	-.13
OEA	5.80	5.50	.41	.84	.84
FHA	5.40	5.67	.86	.70	-1.54
FFA	5.46	5.91	.64	.37	-3.77*
Item: 21					
VICA	4.86	4.92	.85	1.32	-.19
DECA	3.69	4.56	1.67	1.42	-1.79
FBLA	5.03	5.03	.91	.88	.03
OEA	5.07	5.17	1.16	1.60	-.16
FHA	2.47	3.00	1.52	1.81	-1.48
FFA	5.26	5.69	.91	.56	-2.56*

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 22					
VICA	4.79	4.77	.94	.73	.08
DECA	4.57	4.78	1.14	.94	-.64
FBLA	4.86	4.86	.74	.85	.02
OEA	5.20	4.83	.78	.41	1.09
FHA	3.49	3.74	1.41	1.37	-0.84
FFA	5.10	5.29	.75	.84	-1.03
Item: 23					
VICA	4.62	4.77	.73	.83	-.59
DECA	4.14	4.78	.83	1.06	-2.31*
FBLA	4.72	4.86	1.10	.99	-.53
OEA	4.73	3.83	.88	.98	2.05
FHA	4.60	4.53	1.07	1.28	.29
FFA	4.64	5.05	1.06	.85	-1.90
Item: 24					
VICA	5.04	5.08	.76	1.19	-.13
DECA	5.07	5.33	.81	1.14	-.91
FBLA	5.34	5.14	.77	1.07	.87
OEA	5.27	5.83	.88	.41	-1.49
FHA	5.33	5.50	.77	.60	-1.10
FFA	5.21	4.98	.77	1.12	1.08
Item: 25					
VICA	5.07	5.54	.80	.52	-1.94
DECA	5.18	5.50	.77	.78	-1.37
FBLA	5.31	5.28	.89	.94	.14
OEA	5.40	5.83	.74	.41	-1.35
FHA	5.56	5.73	.66	.60	-1.24
FFA	5.21	5.45	.86	.71	-1.42

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 26					
VICA	4.69	5.08	.85	.86	-1.36
DECA	5.00	5.11	.82	.96	-.42
FBLA	4.86	5.00	.79	.79	-.70
OEA	5.57	4.67	.65	1.03	2.40*
FHA	5.29	5.33	.79	.69	-.22
FFA	5.08	5.24	.77	.73	-.99
Item: 27					
VICA	4.61	4.77	.79	.83	-.60
DECA	4.50	5.11	.92	.96	-2.15*
FBLA	4.86	4.97	.88	.81	-.53
OEA	5.20	5.17	.78	.75	.09
FHA	4.78	4.77	.90	1.11	.04
FFA	5.28	5.74	.79	.50	-3.07*
Item: 28					
VICA	4.86	5.08	.92	.95	-.69
DECA	4.46	4.72	1.00	1.07	-.83
FBLA	4.86	4.97	.88	.91	-.49
OEA	4.87	5.83	.83	.41	-2.68*
FHA	4.44	4.73	1.24	1.24	-1.04
FFA	5.26	5.74	.91	.54	-2.87*
Item: 29					
VICA	5.17	5.31	.71	.63	-.59
DECA	5.25	5.39	.80	.70	-.60
FBLA	5.38	5.56	.68	.65	-1.06
OEA	5.60	5.83	.51	.41	-1.00
FHA	5.13	5.65	1.04	.62	-2.82*
FFA	5.41	5.57	.79	.70	-.97

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 30					
VICA	5.24	5.46	.87	.66	-.81
DECA	5.18	5.28	.72	1.02	-.39
FBLA	5.14	5.28	.95	.82	-.64
OEA	5.36	5.33	.84	.82	-.06
FHA	5.11	5.25	.89	.98	-.69
FFA	5.41	5.86	.72	.35	-3.52*
Item: 31					
VICA	4.86	5.15	.92	.90	-.96
DECA	5.04	5.33	.74	.91	-1.21
FBLA	5.07	5.33	1.03	.68	-1.19
OEA	5.33	5.33	.68	.52	.00
FHA	5.22	5.48	.77	.78	-1.50
FFA	5.33	5.60	.66	.59	-1.89
Item: 32					
VICA	4.97	5.00	.78	1.16	-.11
DECA	5.00	4.72	.86	1.02	.99
FBLA	4.97	4.89	1.02	1.01	.30
OEA	4.60	5.00	.99	1.10	-.82
FHA	5.20	5.28	.79	.96	-.40
FFA	5.18	5.31	.91	.81	-.68
Item: 33					
VICA	5.28	5.31	.75	.86	-.12
DECA	5.36	5.22	.83	1.11	.47
FBLA	5.41	5.53	1.09	.77	-.49
OEA	5.67	5.17	.49	.98	1.19
FHA	5.51	5.50	.66	1.11	.06
FFA	5.49	5.86	.72	.47	-2.71*

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 34					
VICA	4.97	4.69	.98	1.03	.82
DECA	3.43	3.28	1.17	1.23	.42
FBLA	3.82	3.47	1.14	1.48	1.06
OEA	4.20	3.00	1.47	.63	1.90
FHA	3.71	3.34	1.18	1.19	1.41
FFA	4.85	5.05	1.09	1.19	-.79
Item: 35					
VICA	5.28	5.69	.80	.48	-1.74
DECA	5.32	4.83	.86	1.04	1.72
FBLA	5.31	5.08	.93	.87	1.01
OEA	5.73	5.83	.46	.41	-.46
FHA	2.78	3.68	1.70	1.69	-2.44*
FFA	5.23	5.48	.93	.86	-1.23
Item: 36					
VICA	4.69	5.08	.89	1.04	-1.24
DECA	4.86	5.00	1.01	.84	-.50
FBLA	4.97	4.97	.78	.88	- .03
OEA	4.93	4.83	.80	.98	.24
FHA	4.98	5.15	.94	.86	-.88
FFA	5.11	5.45	.88	.80	-1.87
Item: 37					
VICA	5.31	5.30	.76	.63	.01
DECA	5.46	5.17	.64	.79	1.41
FBLA	5.21	5.25	.82	.87	-.20
OEA	5.73	5.83	.46	.41	-.46
FHA	4.16	4.33	1.40	1.33	-.57
FFA	5.31	5.57	.77	.59	-1.74

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 38					
VICA	5.17	5.69	.85	.48	-2.52*
DECA	5.64	5.61	.49	.61	.20
FBLA	5.52	5.61	.63	.60	-.61
OEA	5.67	5.33	.49	.82	1.16
FHA	5.53	5.83	.73	.45	2.26*
FFA	5.56	5.74	.68	.54	-1.28
Item: 39					
VICA	5.17	5.08	.81	.86	.35
DECA	5.50	5.33	.58	.84	.80
FBLA	5.45	5.42	.57	.65	.21
OEA	5.40	5.17	.63	.98	.65
FHA	5.53	5.45	.79	.82	.48
FFA	5.41	5.60	.79	.67	-1.15
Item: 40					
VICA	5.17	4.62	.85	1.04	1.83
DECA	3.61	4.65	1.73	1.50	-2.05*
FBLA	5.14	5.00	.85	.89	.65
OEA	5.00	4.50	1.31	2.07	.67
FHA	2.07	2.33	1.63	1.58	-.74
FFA	3.56	3.76	1.62	1.75	-.53
Item: 41					
VICA	4.41	4.77	1.05	.93	-1.05
DECA	4.32	4.50	1.25	.99	-.51
FBLA	4.45	4.44	.87	.88	.02
OEA	4.53	4.50	.99	1.23	.07
FHA	4.84	4.58	1.28	1.39	.93
FFA	4.26	4.64	1.03	.91	-1.75

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 42					
VICA	5.38	5.39	.68	.65	-.02
DECA	5.43	5.39	.69	.78	.18
FBLA	5.38	5.53	.78	.70	-.81
OEA	5.80	4.67	.41	1.03	3.68*
FHA	5.51	5.50	.79	1.04	.06
FFA	5.26	5.55	.88	.59	-1.73
Item: 43					
VICA	5.03	5.54	.87	.78	-1.80
DECA	4.36	4.44	1.25	1.25	-.23
FBLA	4.45	4.78	.95	.96	-1.38
OEA	5.27	5.50	.70	.84	-.65
FHA	4.62	5.50	1.25	.78	-3.92*
FFA	5.03	5.52	.90	.67	-2.83*
Item: 44					
VICA	5.24	5.46	.79	.52	-0.92
DECA	5.21	5.44	.74	.78	-1.01
FBLA	5.45	5.56	.74	.61	-.64
OEA	5.53	5.50	.52	.55	.13
FHA	5.38	5.78	.75	.48	-2.87*
FFA	5.31	5.74	.69	.45	-3.29*
Item: 45					
VICA	5.04	5.62	.78	.51	2.46*
DECA	4.96	5.11	.92	.96	-.52
FBLA	5.00	5.22	.76	.80	-1.14
OEA	5.33	5.33	.72	.52	.0
FHA	5.09	5.60	1.02	.63	-2.81*
FFA	5.26	5.71	.82	.51	-3.00*

TABLE XVI (Continued)

Groups	Mean		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 46					
VICA	5.24	5.62	.74	.77	-1.50
DECA	5.25	5.39	.52	.78	-.73
FBLA	5.24	5.56	.79	.65	-1.76
OEA	5.53	5.33	.52	.52	.80
FHA	5.49	5.69	.73	.77	-1.25
FFA	5.51	5.74	.68	.54	-1.65
Item: 47					
VICA	4.69	5.00	.93	.82	-1.04
DECA	4.54	5.06	.64	1.06	-1.88
FBLA	4.86	5.11	.92	.79	-1.18
OEA	4.93	5.67	.70	.52	-2.30*
FHA	5.16	5.45	.85	.90	-1.55
FFA	5.21	5.60	.73	.54	-2.74*
Item: 48					
VICA	4.93	5.31	.84	.86	-1.33
DECA	3.86	4.78	1.76	1.40	-1.87
FBLA	4.45	4.89	1.15	1.01	-1.64
OEA	4.93	5.17	.70	.98	-.61
FHA	4.71	5.48	1.18	.78	-3.55*
FFA	5.21	5.60	.83	.63	-2.39*
Item: 49					
VICA	4.83	5.00	.89	.82	-.60
DECA	4.82	4.89	.72	.96	-.27
FBLA	4.97	5.22	.82	.72	-1.34
OEA	4.87	5.33	.99	.82	-1.02
FHA	5.16	5.43	.80	.90	-1.46
FFA	4.95	5.57	.92	.59	3.61*

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 50					
VICA	3.76	3.92	1.15	1.66	-.37
DECA	3.46	3.50	1.48	1.65	-.08
FBLA	3.38	3.58	1.18	1.42	-.62
OEA	3.97	2.67	1.05	1.03	2.19*
FHA	4.71	4.65	1.18	1.27	.23
FFA	4.23	4.36	1.09	1.10	-.52
Item: 51					
VICA	4.00	4.23	1.20	1.48	-.54
DECA	4.00	4.44	.98	1.25	-1.35
FBLA	4.17	4.14	.89	1.13	.13
OEA	4.53	4.33	1.06	1.37	.36
FHA	3.76	4.18	1.26	1.17	-1.58
FFA	4.41	4.83	.97	.99	-1.95
Item: 52					
VICA	5.03	5.69	.91	.63	-2.37*
DECA	5.04	5.33	.88	.84	-1.14
FBLA	5.24	5.44	.83	.81	-.99
OEA	5.36	5.67	.63	.52	-1.05
FHA	5.24	5.75	1.03	.54	-2.88*
FFA	5.39	5.64	.78	.62	1.66
Item: 53					
VICA	5.32	5.77	.72	.44	-2.06*
DECA	5.43	5.44	.79	.78	-.07
FBLA	5.48	5.72	.74	.57	-1.48
OEA	5.36	5.67	.63	.52	-1.05
FHA	5.51	5.81	.79	.41	-2.16*
FFA	5.54	5.95	.64	.22	-3.83*

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 54					
VICA	5.03	5.38	.78	.65	-1.41
DECA	5.46	5.39	.64	.85	.34
FBLA	5.21	5.25	.82	.77	-.22
OEA	5.40	5.50	.63	.55	-.34
FHA	4.47	4.80	1.41	1.15	-1.16
FFA	5.26	5.33	.68	.85	-.45
Item: 55					
VICA	5.04	4.85	.82	.69	.72
DECA	5.29	5.11	.81	.96	.66
FBLA	5.14	5.19	.79	.82	-.28
OEA	5.13	5.50	.64	.84	-1.09
FHA	5.22	5.25	.90	.90	-.014
FFA	5.26	5.55	.72	.55	-2.06*
Item: 56					
VICA	4.14	4.15	1.38	1.46	-.03
DECA	3.68	3.56	1.42	1.29	.30
FBLA	4.07	3.69	1.31	1.49	1.06
OEA	3.43	3.83	1.31	1.84	-.49
FHA	3.71	3.90	1.50	1.48	.57
FFA	5.18	5.36	.94	1.12	-.77
Item: 57					
VICA	4.62	4.92	.86	1.19	-.93
DECA	4.54	5.11	.88	.83	-2.21*
FBLA	5.17	5.19	.89	.89	-.10
OEA	5.27	5.17	.96	.75	.23
FHA	4.71	5.15	1.18	1.05	-1.80
FFA	5.54	5.86	.76	.42	-2.33*

TABLE XVI (Continued)

Group	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 58					
VICA	4.66	5.46	.77	.78	3.13*
DECA	4.64	5.28	.99	.83	-2.26*
FBLA	5.00	5.22	.76	.76	-1.17
OEA	5.00	5.00	.76	.89	.0
FHA	5.29	5.43	.92	.75	-.74
FFA	5.23	5.62	.81	.62	-2.43*
Item: 59					
VICA	5.03	5.69	.87	.48	-2.56*
DECA	4.96	5.33	.88	.77	-1.46
FBLA	5.00	5.36	.80	.76	-1.86
OEA	5.00	5.33	.76	.82	-.89
FHA	5.29	5.73	.73	.45	-3.36*
FFA	5.15	5.64	.84	.58	-3.02*
Item: 60					
VICA	4.93	5.00	.88	.71	-.25
DECA	4.89	5.00	.99	.97	-.36
FBLA	5.21	5.14	.77	.90	.32
OEA	5.27	5.50	.70	.55	.73
FHA	5.13	5.40	.99	.84	-1.33
FFA	5.18	5.63	.82	.58	-2.84*
Item: 61					
VICA	4.90	4.92	.82	.95	-.09
DECA	4.68	4.94	.72	1.00	-1.05
FBLA	4.72	4.78	.92	1.05	-.22
OEA	5.27	5.67	.88	.52	-1.03
FHA	5.42	5.58	.87	.55	-.98
FFA	5.31	5.62	.66	.66	-2.13*

TABLE XVI (Continued)

Groups	Mean		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 62					
VICA	4.38	4.77	1.18	.93	-1.05
DECA	4.04	3.83	1.29	1.54	.48
FBLA	3.90	4.19	1.35	1.56	-.81
OEA	4.47	4.00	1.13	1.27	.83
FHA	5.53	5.35	.79	.83	1.04
FFA	5.18	5.45	.76	.74	-1.64
Item: 63					
VICA	4.69	5.15	.97	.80	-1.51
DECA	4.82	4.89	.77	1.23	-.21
FBLA	4.97	5.19	.94	.82	-1.04
OEA	4.87	5.00	1.06	.89	-.27
FHA	4.87	5.30	.87	.72	-2.48*
FFA	5.03	5.26	.86	.70	-1.33
Item: 64					
VICA	4.59	5.46	.98	.78	-2.83*
DECA	4.75	5.39	.89	.85	-2.42*
FBLA	5.21	5.28	.73	.74	-.39
OEA	5.20	5.50	.86	.55	-.78
FHA	4.87	5.18	1.07	.90	-1.44
FFA	5.39	5.62	.71	.66	-1.54
Item: 65					
VICA	4.97	5.39	.78	.77	-1.62
DECA	5.04	4.94	1.00	1.35	.26
FBLA	5.41	5.47	.73	.70	-.33
OEA	5.27	5.50	.59	.55	-.83
FHA	5.31	5.56	1.04	.55	-1.34
FFA	5.51	5.71	.68	.46	-1.55

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 66					
VICA	4.62	4.77	1.18	.93	-.40
DECA	4.14	4.06	1.01	1.51	.24
FBLA	4.38	4.69	1.08	1.06	-1.18
OEA	4.33	3.67	1.23	1.37	1.09
FHA	3.42	3.60	1.37	1.15	.64
FFA	4.72	4.95	.89	1.22	.98
Item: 67					
VICA	3.97	4.08	1.18	1.12	-.29
DECA	3.79	4.00	1.17	1.65	-.52
FBLA	4.35	4.42	1.01	1.16	-.26
OEA	4.00	3.67	1.47	1.97	.42
FHA	4.27	4.13	1.20	1.56	.47
FFA	4.62	4.86	1.09	1.10	-.99
Item: 68					
VICA	5.14	4.69	.83	.95	1.54
DECA	5.04	4.50	.79	1.25	1.62
FBLA	5.14	5.22	.88	.80	-.41
OEA	5.53	4.50	.52	1.23	2.00
FHA	5.52	5.48	.76	.68	.30
FFA	5.31	5.43	.92	.74	-.65
Item: 69					
VICA	4.76	4.77	.91	1.24	-.03
DECA	4.68	4.50	1.09	1.38	.49
FBLA	4.69	5.03	.93	.94	-1.45
OEA	4.93	5.50	.80	.55	-1.58
FHA	4.78	4.85	1.00	1.03	-.33
FFA	4.74	5.17	1.09	.99	-1.83

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 70					
VICA	5.17	5.39	.81	.65	-.83
DECA	5.54	5.56	.64	.71	-.10
FBLA	5.48	5.28	.57	.70	1.27
OEA	5.53	5.50	.64	.84	.10
FHA	5.49	5.63	.82	.59	-.89
FFA	5.33	5.45	.81	.92	-.62
Item: 71					
VICA	4.93	5.15	.92	.90	-.73
DECA	4.54	4.94	1.00	1.31	-1.20
FBLA	4.86	5.11	1.06	1.04	-.95
OEA	4.67	5.50	1.35	.84	-1.40
FHA	4.29	5.28	1.33	.99	3.92*
FFA	4.95	5.17	1.03	1.01	-.96
Item: 72					
VICA	5.21	5.77	.86	.44	-2.80*
DECA	5.25	5.44	.89	.78	-.76
FBLA	5.38	5.50	.78	.74	-.64
OEA	5.50	5.50	.65	.84	.0
FHA	5.20	5.73	1.01	.55	-3.01*
FFA	5.44	5.64	.72	.66	-1.36
Item: 73					
VICA	5.07	5.15	.92	.69	-.30
DECA	4.64	4.89	1.06	1.02	-.78
FBLA	4.62	5.03	.78	.94	-1.87
OEA	4.73	5.50	.96	.55	-1.82
FHA	4.31	5.20	1.31	.99	-3.49*
FFA	5.26	5.69	.91	.60	-2.51*

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 74					
VICA	5.59	5.00	.57	1.16	1.74
DECA	5.14	5.50	.80	.86	-1.43
FBLA	5.28	5.28	.80	.82	-.01
OEA	5.80	5.67	.41	.82	.38
FHA	4.31	4.83	1.20	1.06	-2.08*
FFA	5.44	5.79	.75	.47	-2.48*
Item: 75					
VICA	5.07	5.00	.88	1.00	.22
DECA	5.11	5.11	.88	.96	-.01
FBLA	5.17	5.28	.89	.82	-.50
OEA	5.20	5.50	.68	.84	-.86
FHA	5.42	5.68	.84	.47	-1.73
FFA	5.33	5.55	.70	.59	-1.49
Item: 76					
VICA	4.83	3.85	1.00	1.28	2.69*
DECA	4.71	4.72	.94	.96	-.03
FBLA	4.71	4.89	.94	.96	-.71
OEA	4.87	4.83	.74	1.60	.05
FHA	5.18	4.90	1.11	1.08	1.16
FFA	5.10	5.43	.91	.80	-1.71
Item: 77					
VICA	5.48	5.39	.69	.65	.43
DECA	5.21	5.44	.79	.86	-.94
FBLA	5.28	5.39	.84	.84	-.54
OEA	5.67	5.80	.49	.45	-.54
FHA	2.76	3.53	1.71	1.85	-1.99*
FFA	5.51	5.74	.76	.70	-1.39

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 78					
VICA	4.55	5.15	1.15	1.07	-1.60
DECA	4.26	4.78	1.20	1.17	-1.44
FBLA	4.72	4.81	.92	.92	-.35
OEA	5.07	5.50	.88	.55	-1.11
FHA	5.38	5.68	.86	.62	-1.85
FFA	4.46	5.41	1.04	.80	-4.55*
Item: 79					
VICA	4.90	4.92	1.11	1.12	-0.07
DECA	4.75	5.11	.93	1.18	-1.16
FBLA	4.83	4.89	.85	.95	-.27
OEA	5.07	5.33	.96	1.03	-.56
FHA	5.47	5.75	.87	.49	-1.87
FFA	5.23	5.48	.74	.77	-1.46
Item: 80					
VICA	3.67	4.23	1.81	1.74	-.93
DECA	3.46	3.61	1.88	2.06	-.25
FBLA	3.14	3.44	1.81	1.89	-.66
OEA	3.39	2.83	1.61	2.48	.59
FHA	3.09	3.15	2.08	2.06	-.14
FFA	4.28	4.93	1.76	1.50	-1.78
Item: 81					
VICA	5.17	5.54	.85	.52	-1.43
DECA	5.14	5.33	.80	.84	-.77
FBLA	5.17	5.44	.76	.74	-1.46
OEA	5.47	5.67	.74	.82	-.54
FHA	5.61	5.72	.72	.54	-.79
FFA	5.44	5.57	.60	.99	-.75

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 82					
VICA	5.03	4.85	.91	1.07	.59
DECA	4.82	4.78	1.12	1.06	.13
FBLA	4.79	5.09	1.05	.92	-1.19
OEA	5.333	5.00	.82	.86	.82
FHA	5.38	5.13	.86	1.18	1.12
FFA	5.18	5.48	.82	.71	-1.74
Item: 83					
VICA	5.24	5.15	.74	.69	.36
DECA	5.21	5.44	.79	.86	-.94
FBLA	5.38	5.53	.78	.70	-.81
OEA	5.53	5.50	.64	.84	.10
FHA	5.53	5.58	.76	.55	-.29
FFA	5.40	5.71	.76	.51	-2.20*
Item: 84					
VICA	5.31	5.62	.76	.65	-1.25
DECA	5.25	5.33	.80	.91	-.33
FBLA	5.28	5.50	.84	.78	-1.12
OEA	5.20	5.67	.86	.82	-1.14
FHA	5.38	5.75	.78	.59	-2.47*
FFA	5.28	5.43	.76	.80	-.84
Item: 85					
VICA	5.10	5.39	.77	.96	-1.01
DECA	4.50	4.56	1.62	1.15	-.13
FBLA	4.66	4.86	1.05	1.07	-.78
OEA	5.00	5.50	1.25	.84	-.89
FHA	4.82	5.45	1.13	.82	-2.95*
FFA	5.36	5.43	.76	.80	-.84

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 86					
VICA	5.07	5.15	.81	.99	-.28
DECA	4.86	5.00	.76	1.14	-.51
FBLA	4.97	5.17	.82	.66	-1.10
OEA	4.93	5.17	.80	.75	-.61
FHA	5.38	5.56	.75	.64	-1.13
FFA	5.18	5.57	.82	.63	-2.42*
Item: 87					
VICA	4.86	5.69	.95	.63	-2.86*
DECA	3.85	4.47	1.66	1.55	-1.24
FBLA	3.93	4.44	1.39	1.42	-1.46
OEA	4.87	5.50	1.06	.84	-1.30
FHA	4.87	5.53	1.20	.82	-2.99*
FFA	5.10	5.64	1.00	.73	-2.81*
Item: 88					
VICA	5.03	5.31	.87	.86	-.95
DECA	4.93	5.06	.77	1.10	-.46
FBLA	4.83	5.11	.89	.83	-1.33
OEA	5.07	5.00	.80	.89	.17
FHA	5.38	5.70	.83	.52	-2.17*
FFA	5.33	5.50	.62	.71	-1.12
Item: 89					
VICA	5.14	5.39	.92	.87	-.82
DECA	5.15	4.94	.86	1.06	.71
FBLA	4.76	5.08	1.02	.97	-1.31
OEA	5.27	5.17	.88	.98	.23
FHA	5.40	5.63	.92	.54	-1.40
FFA	5.49	5.71	.60	.51	-1.84

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 90					
VICA	5.14	5.39	.74	.65	-1.03
DECA	5.32	5.33	.72	.97	-.05
FBLA	4.93	5.14	.92	.80	-.97
OEA	4.93	5.17	.80	.75	-.61
FHA	5.24	5.53	.88	.60	-1.73
FFA	5.44	5.52	.68	.63	-.60
Item: 91					
VICA	5.41	5.54	.78	.66	-.50
DECA	5.25	5.33	.84	.97	-.31
FBLA	5.48	5.44	.79	.77	.20
OEA	5.67	5.50	.62	.84	.51
FHA	4.18	4.90	1.30	1.10	-2.75*
FFA	5.49	5.76	.68	.48	-2.07*
Item: 92					
VICA	5.24	5.54	.79	.66	-1.19
DECA	5.50	5.44	.58	.86	.26
FBLA	5.38	5.47	.78	.65	-.52
OEA	5.33	4.83	.72	1.33	1.12
FHA	5.51	5.70	.70	.56	-1.37
FFA	5.51	5.62	.64	.58	-.78
Item: 93					
VICA	5.07	5.08	.84	.76	.03
DECA	5.25	5.39	.52	.78	-.73
FBLA	5.28	5.47	.65	.61	-1.26
OEA	5.00	5.00	.85	.89	.0
FHA	5.33	5.63	.77	.59	-1.98
FFA	5.41	5.69	.75	.52	-1.94

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 94					
VICA	5.17	5.62	.76	.51	-1.91
DECA	5.39	5.72	.51	.63	-1.79
FBLA	5.45	5.44	.74	.70	.02
OEA	5.27	6.00	.96	.0	-1.84
FHA	5.60	5.72	.65	.51	.91
FFA	5.49	5.71	.60	.55	-1.77
Item: 95					
VICA	5.10	5.39	.82	.87	-1.01
DECA	4.86	5.39	.85	.70	-2.22*
FBLA	5.24	5.22	.69	.64	.12
OEA	5.20	5.83	.78	.41	-1.88
FHA	5.29	5.58	.82	.55	1.92
FFA	5.23	5.57	.90	.63	-1.96
Item: 96					
VICA	5.21	5.31	.86	.63	-.38
DECA	5.32	5.33	.61	.77	-.06
FBLA	5.31	5.33	.76	.76	-.12
OEA	5.53	5.50	.64	.84	.10
FHA	5.05	5.46	1.12	.68	-2.07*
FFA	5.44	5.60	.64	.67	-1.10
Item: 97					
VICA	5.31	5.08	.97	.86	.75
DECA	5.36	5.17	.56	.99	.84
FBLA	5.28	5.28	.84	.78	-.01
OEA	5.60	5.83	.63	.41	-.83
FHA	3.77	4.82	1.36	1.12	-3.80*
FFA	5.33	5.57	.62	.59	-1.77

TABLE XVI (Continued)

Groups	Means		Standard Deviation		t
	SA	SP	SA	SP	*p ≤ .05
Item: 98					
VICA	4.69	5.31	1.04	.75	-1.93
DECA	4.41	4.78	1.01	1.31	-1.07
FBLA	4.34	4.44	1.11	1.30	-.33
OEA	4.80	4.67	.94	1.97	.16
FHA	3.42	4.35	1.41	1.49	-2.95*
FFA	5.03	5.62	.87	.62	-3.50*

SA - State Advisers

SP - State Presidents

*Significant at .05 level

APPENDIX M

DIFFERENCES FOR GIBBONS' MULTIPLE COMPARISON PROCEDURES BY GROUP COMPARISONS

TABLE XVII

Mean Rank Values Developed by the Kruskal-Wallis Procedure

Items	Groups					
	VICA	DECA	FBLA	OEA	FHA	FFA
4	144.88	183.93	156.42	142.62	187.66	181.07
5	121.44	161.52	140.27	196.48	196.20	196.10
6	156.35	170.40	154.38	212.48	135.28	220.68
7	130.51	146.50	172.97	183.67	199.03	174.20
8	135.57	167.14	176.83	163.45	189.89	171.55
9	136.53	185.34	176.48	174.33	143.22	206.71
10	150.87	183.33	158.48	161.88	163.75	187.44
18	160.44	163.63	164.95	208.28	141.14	208.93
20	136.48	164.48	162.07	192.90	175.11	190.02
28	168.23	134.90	164.22	186.50	143.95	224.23
37	182.87	188.39	179.19	236.43	106.29	200.93
43	190.38	125.39	136.08	201.45	181.36	197.65
48	173.63	131.26	144.67	164.36	180.72	206.49
54	164.24	200.24	176.63	195.98	133.65	185.54
57	131.37	129.90	173.63	179.45	153.80	230.50
61	139.15	126.09	130.02	194.43	207.79	203.33
62	142.57	112.36	123.51	131.57	225.67	211.96
65	134.66	140.83	178.35	155.95	180.26	197.50
73	176.55	146.79	152.53	163.69	154.05	217.84
74	188.51	172.53	170.46	225.86	113.46	209.07
78	152.42	128.04	145.11	183.93	219.58	166.94
85	175.27	134.63	141.01	179.17	173.49	210.35
87	181.97	122.02	121.64	175.21	190.25	204.88
91	186.66	170.09	188.12	204.62	109.20	204.42
97	181.03	180.91	182.12	224.90	108.14	199.11

APPENDIX N

VALUES FOR GIBBONS' MULTIPLE COMPARISON PROCEDURE

TABLE XVIII

Values for the Gibbons' Formula by Respondent Groups

$$\left(\left| \bar{R}_i - \bar{R}_j \right| * \leq z \sqrt{\frac{N(N+1)}{12} \left(\frac{1}{n_i} + \frac{1}{n_j} \right)} \right)$$

Groups	VICA (n = 43)	DECA (n = 47)	FBLA (n = 65)	OEA (n = 21)	FHA (n = 85)	FFA (n = 81)
VICA		51.33	47.70	65.20	45.78	45.78
DECA			47.07	64.74	45.12	45.12
FBLA				61.42	40.21	40.21
OEA					59.94	59.94
FHA						37.91
FFA						

*Based on Mean Values from Kruskal-Wallis ANOVA.

APPENDIX O

SIGNIFICANT DIFFERENCES OF MEANS OF RESPONDENT GROUP BASED ON THE GIBBONS' MULTIPLE COMPARISON PROCEDURE

TABLE XIX

Significant Differences of Means of Respondent Groups Compared to Mean Responses of VICA

(Mean Scores Based on Kruskal-Wallis Test)

Item	*Means Whose Differences Exceed 5.133 DECA	*Means Whose Differences Exceed 47.70 FBLA	*Means Whose Differences Exceed 65.20 OEA	*Means Whose Differences Exceed 45.78 FHA	*Means Whose Differences Exceed 45.78 FFA
4	39.05	11.54	2.26	42.78	36.19
5	40.08	18.83	75.04*	74.76*	74.66*
6	14.05	1.97	56.13	21.07	64.33*
7	15.99	42.46	52.86	68.52*	43.69
8	31.57	41.26	27.88	54.32*	35.98
9	48.81	39.95	37.80	6.69	70.18*
10	32.46	7.61	11.01	12.88	36.57
18	3.19	4.51	47.94	19.30	48.49*
20	28.00	25.59	56.44	38.63	53.54*
28	33.33	4.01	18.27	24.28	5.600*
37	5.52	3.68	53.56	76.58*	18.06
43	64.99*	54.30*	11.07	9.02	7.27
48	42.37	28.96	9.27	7.09	32.86
54	36.00	12.39	31.74	30.59	21.30
57	1.47	42.26	48.08	22.43	99.13*
61	13.06	9.13	55.28	68.64*	64.18*
62	30.21	19.06	11.00	83.10*	69.39*
65	6.17	43.69	21.29	45.60	62.84*
73	29.76	24.02	12.86	22.50	41.29
74	15.98	18.05	37.35	74.69*	20.56
78	24.38	07.31	31.51	67.16*	14.52
85	40.64	34.26	3.90	1.78	35.08
87	59.95*	60.33*	6.76	8.28	22.91
91	16.57	1.46	17.96	77.46*	17.76
97	0.12	1.09	43.87	72.89*	18.08

TABLE XX

Significant Differences of Means of Respondent Groups Compared to Mean Responses of DECA

(Mean Scores Based on Kruskal-Wallis ANOVA)

Item	*Means Whose Differences Exceed 47.07 FBLA	*Means Whose Differences Exceed 64.74 OEA	*Means Whose Differences Exceed 45.12 FHA	*Means Whose Differences Exceed 45.12 FFA
4	27.51	41.31	3.73	2.86
5	21.25	34.96	34.68	34.58
6	16.02	42.08	35.12	50.28*
7	26.47	37.17	52.53*	27.70
8	9.69	3.69	22.75	4.41
9	8.86	11.01	42.12	21.37
10	24.85	21.45	19.58	4.11
18	1.32	44.75	22.49	45.30*
20	2.41	28.42	10.63	25.54
28	29.32	51.60	9.05	89.33*
37	9.20	48.04	82.10*	12.54
43	10.69	76.06*	55.97*	72.26*
48	13.41	28.10	44.46	75.23*
54	23.61	4.26	66.59*	14.70
57	43.73	49.55	23.90	100.60*
61	3.93	68.34*	81.70*	77.24*
62	11.15	19.21	113.31*	99.60*
65	37.52	15.12	39.43	56.67*
73	5.74	16.90	7.26	71.05*
74	2.07	53.33	59.07*	36.54
78	17.07	55.89	91.54*	38.9
85	6.38	44.54	38.86	75.72*
87	.38	53.19	68.23*	82.86*
91	18.03	34.53	60.89*	34.33
97	1.21	43.99	72.77*	18.20

TABLE XXI

Significant Differences of Means of Respondent Groups Compared to Mean Responses of FBLA

(Mean Scores Based on Kruskal-Wallis ANOVA)

Item	*Means Whose Differences Exceed 61.42 OEA	*Means Whose Differences Exceed 40.21 FHA	*Means Whose Differences Exceed 40.21 FFA
4	13.80	31.24	24.65
5	56.21	55.93*	55.83*
6	58.10	19.10	66.30*
7	10.70	26.06	1.23
8	13.38	13.06	5.28
9	2.15	33.26	30.23
10	3.40	5.27	28.96
18	43.43	23.81	43.98*
20	30.83	13.04	27.95
28	22.28	20.27	60.01*
37	57.24	72.90*	21.74
43	65.37*	45.28*	61.57*
48	19.69	36.05	61.82
54	19.35	42.98	8.91
57	5.82	19.83	56.87*
61	64.41*	77.77*	73.31*
62	8.06	102.16*	88.45*
65	22.40	1.91	19.15
73	11.16	1.52	65.31*
74	55.40	57.00*	38.61
78	38.82	74.47*	21.83
85	38.16	32.48	69.34*
87	53.57	68.61*	83.24*
91	16.50	78.92*	16.30
97	42.78	73.98*	16.99

TABLE XXII

Significant Differences of Means of Respondent Groups Compared to Mean Responses of OEA

(Mean Scores Based on Kruskal-Wallis ANOVA)

Item	*Means Whose Differences Exceed 59.94 FHA	*Means Whose Differences Exceed 59.94 FFA
4	45.04	38.45*
5	.28	.38
6	77.20*	8.20
7	15.36	9.47
8	26.44	8.10
9	31.11	32.38
10	1.87	25.56
18	67.24*	.55
20	17.79	2.88
28	42.55	37.73
37	130.14*	35.50
43	20.09	3.80
48	16.36	42.13
54	61.33*	10.44
57	25.65	51.05
61	13.36	8.9
62	94.10*	80.39*
65	24.31	41.55
73	9.64	54.15
74	112.40*	16.79
78	35.65	16.99
85	5.68	31.18
87	15.04	29.67
91	95.42	.20
97	116.76*	25.79

TABLE XXIII

Significant Differences of Means of Respondent Groups Compared to Mean Responses of FHA

(Mean Scores Based on Kruskal-Wallis ANOVA)

Item	*Means Whose Differences Exceed 37.91 FFA
4	6.59
5	.10
6	85.40*
7	24.83
8	18.34
9	63.49*
10	23.69
18	67.79*
20	14.91
28	80.28*
37	94.64*
43	16.29
48	25.77
54	51.89*
57	76.70*
61	4.46
62	13.71
65	17.24
73	63.79*
74	95.61*
78	52.64*
85	36.86
87	14.63
91	95.22*
97	90.97*

VITA

Joyce Ford Bales was born in Greene County, Tennessee. She attended Mosheim Elementary and High School, and was graduated in May 1964. The following September she attended the University of Tennessee, Knoxville. In June 1967, she received a Bachelor of Science degree in Home Economics Education. In the fall of 1967, she accepted a teaching position with the Greene County Schools and taught Occupational Home Economics: Child Care and Guidance, as well as Consumer and Homemaking at West Greene High School. She also taught related home economics courses at North Greene High School and Greeneville High School.

She has taught Child Care and Guidance Programs for adults attending the Morristown State Area Vocational School. She was employed by the Greene Valley Developmental Center in October 1970, where she assisted in the development of a day-care program for handicapped children and also taught in the educational facility. She accepted a teaching position as instructor of Food Services, Management, and Production with the Greeneville-Greene County Vocational High School in September 1973.

She completed the requirements for the Master of Arts degree in Instructional Communications at East Tennessee State University in August 1974. She received an Education Professional Development Act (EPDA) fellowship in August 1975, when she entered graduate school at the University of Tennessee, Knoxville. She received the Doctor of Education degree with a major in Vocational-Technical Education and

a cognate field in Educational Administration and Supervision in March 1979.

Presently, she is a curriculum coordinator of Vocational Education Programs for the Greeneville-Greene County School Systems. She is also an adjunct faculty member for Walter's State Community College.

Her professional memberships include American Vocational Association, Tennessee Vocational Association, National and Tennessee Education Association, American Home Economics Association, as well as other national, state, regional, and local education associations. She was a nominee for Tennessee's Distinguished Classroom Teacher. She was selected for an "Outstanding Service to Students Award" by the Greeneville Chamber of Commerce. She is listed in the Outstanding Secondary Educators of America—1975. She is currently chairperson of the education committee for the Marguerite Brumley Chapter of the American Business Women's Association. She is also a charter member of Alpha Chapter of Omicron Tau Theta (national honor and professional association in vocational education) and Omicron Nu (national honor and professional association in home economics).

Her parents are Rufus Carl and Lillie Davidson Ford of Mosheim, Tennessee. She is married to Max Miller Bales of Greeneville, Tennessee, who is a self-employed businessman. They have one son Max II.