PROFESSIONAL VOCATIONAL TECHNICAL EDUCATION
COMPETENCIES FOR SWAZILAND TEACHERS OF
AGRICULTURAL, COMMERCIAL, HOME ECONOMICS,
AND TECHNICAL STUDIES

by

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Dissertation submitted to the Faculty of
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Vocational and Technical Education

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March, 1994
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ABSTRACT

The primary objectives of this study were to identify the professional vocational technical education competencies needed by Swaziland agricultural, commercial (business), home economics, and technical teachers; and to assess the teachers' perceived importance of and the perceived ability to perform these competencies. The study also sought to determine if differences existed as functions of the four teacher specialty groups (areas), levels of education, and years of teaching experience.

The professional vocational technical education competencies were developed in two, one-day focus group workshops with Swaziland teacher educators, curriculum development specialists, and school senior inspectors (supervisors) from the four specialty groups (areas) of agricultural, commercial, home economics, and technical studies. The workshop results were a universe of 161 professional vocational technical education competencies needed by Swaziland secondary/high school vocational teachers.
Data were collected via a mailed instrument to determine the teachers' perceptions of the importance and ability to perform the 161 competencies. The respondents surveyed were a stratified, random sample of 191 teachers, composed of agricultural (57), commercial (54), home economics (40), and technical (40) studies. All questionnaires were returned. Descriptive statistics were used to analyze and summarize the data. Measurement scales of importance and performance corresponding to the Likert scales utilized in the survey instrument were employed for data analysis purposes.

Major findings were that teachers, regardless of specialty groups (areas), educational levels, and years teaching experience, agreed on the high importance of and a good ability to perform the 161 professional vocational technical education competencies needed to fulfill job expectations of secondary/high school vocational technical teachers.

From these results, it was concluded that the professional vocational technical education competencies developed are needed by Swaziland teachers of agricultural, commercial, home economics, and technical studies. Hence, it was recommended that the developed competencies be adopted for inclusion in the teacher education programs, and that further study is needed to determine the more critical inservice needs of teachers.
ACKNOWLEDGMENTS

It is with sincere appreciation that I acknowledge the individuals who have made this endeavor possible.

I owe a debt of gratitude to Dr. John R. Crunkilton, Chairperson of my doctoral studies, for his invaluable help in the guidance of research and the direction of my dissertation. Special thanks go to my doctoral committee members, Drs. Curtis R. Finch, J. Dale Oliver, Josiah S. Tlou, and Thomas H. Hohenshil, for their support, positive evaluations, and constructive critiques.

Special appreciation is extended to the Director of Education, Chief Inspector (Secondary), Dean of Faculty of Agriculture, Principal of SCOT, and Director of NCC for making it possible that senior inspectors, teacher educators, curriculum development specialists, and career guidance personnel could participate in the two focus group workshops. To the focus group participants and teacher respondents to the questionnaire for willingly providing the data by giving me some of their valuable time, I wish them all God’s blessing. I am most grateful to Educansult Limited/ECS of Canada for providing me with the literature on the Swaziland project on vocational and technical education funded by the African Development Bank to which this study has a direct bearing.

My whole hearted thanks goes to Mrs. Paula Buchanan (and the family) for her helpful suggestions and excellent work in typing and typesetting the voluminous manuscript, and unending patience with the author. For typing the prospectus and the focus group workshop notes, my sincere gratitude goes to Ms. Terry Stevers and Mrs. Mildred Dlamini, respectively.
I wish to extend my appreciation to my sisters for their encouragement. Special thanks goes to my mother who inspired in me the love of learning, made sacrifices when I was growing up, and shared with me the family Christian heritage.

To my family: I thank my love, my wife, Nomsa, for her boundless love, support of my endeavors, and joy in my accomplishments; our children Pholile, Bandzile, and Zakaza for their understanding and endurance.

Finally, to God be the glory for giving me the strength and direction to accomplish this task.
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Chapter 1

INTRODUCTION

The compelling pressure on governments of developing economies to embark on secondary school curriculum vocationalization of the practical arts: agricultural, commercial, home economics, and technical studies, developed as a socioeconomic response to emerging features of structural unemployment. Psacharopoulos (1985) expressed that "it is commonly thought that introducing a vocational element in the secondary school curriculum, especially in developing countries, is conducive to economic development" (p. 589). Policy makers in the Ministries of Education and Labor in developing economies tend to attribute youth unemployment and social strife to lack of linkages between formal schooling and occupations in the workplace. Their thinking appears to be driven by the acceptance of the premise that schools have the mandate to prepare young people for full participation and membership in society. This implies that schools are in a position of responsibility for the employability of their graduates.

Vocational education at the secondary school level is aimed at preparing the youth for initial entry into employment (Calhoun & Finch, 1982). It is economic education as it is geared to the needs of the job market and, thus, contributing to national economic strength (Calhoun & Finch, 1982). The educational reform to vocationalize the secondary curriculum of agricultural, commercial, home economics, and technical studies in Swaziland is perceived by the policy makers as the potential for providing the pathway to wage employment or self-employment for the majority of youth and high school leavers who are not college bound (National Education Review Commission,
This educational reform acknowledges and indeed concurs with Lewis' (1990) assertion that:

The hypothesis upon which formal vocational education everywhere is premised is that it results in an economic return on investment to the learner and society. This hypothesis can also take the form that vocational education reduces unemployment and leads to productivity. In the third world countries, the hypothesis links vocational education with economic development. (p.1)

Such a thrust and focus represent an educational reform which implies a mission whose goal is that all students be prepared by the educational system for employment/self-employment and/or further education. "By equipping the majority of young people with appropriate vocational knowledge and with appropriate skills, it should be possible to increase labor productivity and economic performance" (Atkins, 1986, p. 49).

The implications of secondary school curriculum vocationalization encompass the participation and involvement of business and industry in terms of curriculum input and an advisory responsibility, work-based learning experiences for workforce development of students, and school-to-work transition strategies. In developing economies the contemporary dominating thrust in regard to secondary curriculum vocationalization is labor market relevance. Summarizing the characteristic rationalization of policies to vocationalize education in developing economies, Lauglo and Lillis (1988) observed that:

Vocationalization policies are quest for greater labor market relevance of education: for better articulation between the content of schooling and subsequent application of acquired skills, attitudes and knowledge in the world of work, both in obtaining a livelihood and in becoming more productive in the work obtained. The programs show a spectrum of such economic relevance goals: prevocational education (preparation for vocational training), skills
training, preparing for direct entry to jobs, diminishing the pressure on higher education by making secondary education more "terminal," instilling more favorable attitudes to technical and practical work and remeedying youth unemployment. (pp. 8-9)

Swaziland, as a developing country, with an economy characterized by specialization, openness, free-market, and dualism is not exempt from the characteristic rationalization of vocational policies articulated above by Lauglo and Lillis. The Swaziland political rhetoric of labor market relevance of the secondary education curriculum remains a major item on the government's educational agenda.

Closely intertwined with and indeed hinged and linked to this educational reform which suggests a change in Swaziland's educational system is teacher preparation, that is, development of a contemporary vocational teacher education curriculum within a context of a total Swaziland educational reform. The question relevant to this reform is: "What specific preparation must be provided to prepare vocational teachers for their new role in the education enterprise?" (Finch, 1991, p. 5). Such reform places new professional requirements on teachers because of the links in existence "between preparation and actual performance in the teacher role" (p. 5). Hence, Swaziland needs a data base in professional vocational technical teacher education that will provide a firm foundation upon which decisions can be made regarding the development of a vocational technical teacher education program.

In the last decade and a half, reviews of research, literature, and commissioned studies in the education sector of Swaziland have continued to point to the urgent need to address the issue of the relevance of education to the Swaziland economic and sociopolitical context (Atherton, Duff, & Gailer,
1981; Colclough & Digby, 1978; Educansult Limited, 1992; Elliott, 1987; National Education Review Commission, 1985; Special Committee to Study Pre-Vocational Education, 1990; Sullivan, 1981; Vocational Training Branch International Labor Office, 1986). Highlights of some of the more recent and relevant education sector reviews and commissioned studies/findings related to the need for a vocationalized secondary curriculum and the critical need for an effective teacher education program in Swaziland schools follow.

In the Education and Training Sector Review report on Swaziland by Atherton, Duff, and Gailer (1981), a recommendation was made for the "expansion of secondary level education closely tied to employment possibilities" (p. v). Furthermore, they predicted and warned against unemployment of school leavers. They called for adding training in a wide range of technical and vocational education, diversified activities, and alternative programs of study to the formal academic education system. They also recommended the establishment of a technical and vocational teacher education program at the Swaziland College of Technology.

The National Education Review Commission appointed in 1985 to isolate the main problems associated with the relevance of education to the national needs, recommended the establishment of alternative education such as vocational education that would link education to the world of work, and schools and schooling to business and industry. The plight of the secondary school leavers and graduates who can neither proceed to postsecondary training nor find job leads, in the main, to the recommendation of establishing vocational education. Such a diversification of the secondary curriculum would cater to the different aptitudes and talents of students with the selection of subjects in the
schools offering suitable choices of academic and vocational subjects. The integration of vocational education into the teacher education curriculum, and the expansion of the vocational and technical program at the Swaziland College of Technology was one of the strongest recommendations.

In launching a vocational education program in Swaziland, certain requirements to support programs, structures, and activities would have to be met. As reported by the Special Committee to Study Pre-Vocational Education: "In order to develop pre-vocational [vocational] to its full potential and capacity," (Special Committee to Study Pre-Vocational Education, 1990, p.15) the Committee identified certain prerequisite activities and studies that would have to be undertaken. One of the studies identified by the Committee to be conducted, which also constitutes the focus of this research, was to "develop a scheme for teacher training in the country, and for bridging the gap until this can be realized; and upgrade experienced teachers in specific competencies in bridging courses here or abroad" (p. 15).

Educansult Limited (1992) clearly indicated the need for a study whose findings will identify the professional vocational technical education competencies needed by teachers. Educansult Limited Phase One Report (1992) indicated:

Teacher training programs at the University of Swaziland and the Swaziland College of Technology must be significantly expanded to provide training for secondary and primary teachers for the prevocational [vocational] areas of Business and Commerce, Home Economics/Hospitality and Technical subjects." (p. 3-19)

The purpose of such teacher education programs, as expressed by the report of Educansult Limited in the Phase One of the Education Sector Study of the Kingdom of Swaziland, will "train new teachers and also retrain existing school
staff in the delivery and examination of the new prevocational [vocational]/materials" (p. 3-19). But, what are the specific professional vocational technical education competencies that teachers must possess in launching the secondary vocational curriculum?

**Statement of the Problem**

The impact that vocational technical education teachers will have on the successful delivery of vocational technical instruction cannot be overemphasized in this Swaziland educational reform. This role expectation leads to the issue and problem of what professional vocational teacher competencies are needed by the teachers to fulfill this expectation. The educational reform movement in Swaziland has pointed to the need and value of vocationalization of the secondary school curriculum of the practical arts and the need to identify the professional vocational technical teacher education competencies needed by vocational technical teachers. The problem was that the professional competencies needed by agricultural, commercial, home economics, and technical teachers has neither been developed nor has an assessment been made of the perceived ability of the current teachers to perform these competencies. Hence, a gap in the literature existed and this investigation represented an important piece of research that contributed to the knowledge and needs of vocational technical teachers' education in a country with a developing economy.
Purpose of the Study

The major purposes of this study were to identify the professional vocational technical education competencies needed by Swaziland agricultural, commercial, home economics, and technical teachers, and to assess the teachers' perceived importance of and the perceived ability to perform these competencies.

Research Questions

Based on the foregoing introduction, research problem, and the purposes of this study, answers to the following questions were sought:

1. What are the professional vocational technical education competencies needed by agricultural, commercial, home economics, and technical teachers?

2. What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

3. Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

4. What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

5. Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?
6. Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

7. Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

8. Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

9. Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

Rationale for the Study

The Government of Swaziland has proposed major educational reforms at the secondary/high school level of the Swaziland educational system. The educational reform introduces a vocational technical focused curriculum of the practical arts: agricultural, commercial, home economics, and technical studies. It is assumed and hence anticipated that a vocationalized secondary curriculum will better serve the needs of students as well as the manpower requirements of Swaziland. It is hypothesized by policy makers that a vocational curriculum prepares youth for wage employment/self-employment by linking formal schooling and occupations in the workplace, thus reducing youth unemployment and social strife, and the economy thrives. This educational reform inevitably, logically, and of necessity, calls for a revision of preservice and in-service teacher education programs to reorient teachers to the professional education strategies and competencies of the development, delivery, and
evaluation of vocational technical focused curriculum (Educansult Limited, 1992; Special Committee to Study Pre-Vocational Education, 1990). Hence, this study identified the professional vocational technical education competencies needed by vocational teachers. Furthermore, the study assessed the ability of the teachers to perform these competencies such that direction could be given to the improvement of the preservice and in-service teacher education programs for prospective vocational teachers.

**Assumptions**

The study was based on the following assumptions:

1. Development and validation of professional vocational technical education competencies important and relevant for agricultural, commercial, home economics, and technical teachers can be determined through the search of related commissioned studies, the literature, and focus group workshop interviews held with Swaziland professionals; i.e., school senior inspectors, teacher educators, and curriculum development specialists for these teaching specialty areas.

2. Swaziland agricultural, commercial, home economics, and technical teachers can assess: (a) the importance of professional vocational technical education competencies; and (b) their own ability to perform these competencies.

**Limitations**

The Swaziland school inspectors, teacher educators, curriculum development specialists, and teachers of agricultural, commercial, home economics, and technical studies have had traditional teacher education preparation in general professional education with a rather academic and
general approach to the teaching of specialty areas. They have no formal preparation in professional vocational technical teacher education. However, these professionals are the most appropriate and best qualified participants not only to contribute, but also to be actively engaged in an investigation of their profession.

Definitions

The operational definitions of terms frequently used in this study follow.

**Ability to perform** – perceived expertise to apply the professional vocational technical education teacher competency when fulfilling job expectations.

**Agriculture/agricultural teachers** – professionals who provide instruction in agriculture in the secondary/high schools of Swaziland. For purposes of this study the equivalent is vocational agriculture teachers.

**Commercial teachers** – professionals who provide instruction in commercial studies; commerce, accounting, typewriting, and arithmetic in the Swaziland secondary/high schools. For purposes of this study, the equivalent is vocational business education teachers.

**Competence** – the ability to perform work roles to the standards expected in the workplace, and be able to transfer knowledge, skills, and attitudes to new situations within the occupational area.

**Home economics teachers** – professionals who provide instruction in fashion and fabrics, food and nutrition, and home management in the Swaziland secondary/high schools. For purposes of this study, the equivalent will be vocational/occupational home economics teachers.

**Importance** – perceived value of the professional vocational technical education competency in fulfilling job expectations.
**Perception** – the process of determining the meaning of what is sensed; the sensory images in the conscious self as influenced by the mental state, past experience, knowledge, motivations, and such other related factors.

**Professional vocational technical education competency** – the state or quality of the knowledge, skills, attitudes and abilities needed to perform at an acceptable standard in the fulfillment of the expected job responsibilities of a vocational technical education teacher. Professional prevocational education competency is an equivalent term. As further clarification, these professional competencies do not include the specific technical knowledge, skills, and abilities needed by teachers as they teach the curriculum content associated with each vocational specialty.

**Technical teachers** – professionals who provide instruction in technical studies; metalwork, woodwork, and geometrical and mechanical drawing in the Swaziland secondary/high schools. For purposes of this study, the equivalent will be trade and industrial and technology education (industrial arts) teachers.

**Vocationalized/vocational technical education curriculum** – totality of learning activities and experiences characterized by a process and product orientation in respect of the learner; justified by employment opportunities and entrance to tertiary education for the learner; focused on the development of the learner’s knowledge, skills, and attitude; and responsive to changes as guided by performance standards of success in both the dynamic school laboratory/environment and the changing workplace. Prevocationalized/prevocational education curriculum is an equivalent term in the Swaziland context.

**Chapter Summary**

This chapter has presented the background of the problem investigated. The problem was discussed in the context of Swaziland where data were collected. Nine research questions, two study assumptions, and one study limitation were presented to help clarify the nature of this research project. The major purposes of this study were to identify the professional vocational
technical education competencies needed by Swaziland agricultural, commercial, home economics, and technical teachers, and to assess the teachers' perceived importance of and the perceived ability to perform these competencies.
Chapter 2
REVIEW OF LITERATURE

Introduction

The purposes of this study were: to identify the professional vocational technical education competencies needed by Swaziland agricultural, commercial, home economics, and technical teachers, and to assess the teachers' perceived importance of and the perceived ability to perform these competencies. These purposes addressed the situation whereby the Swaziland Government has proposed an introduction of a vocational technical education focused curriculum of the practical arts in the secondary/high schools of the country. The problem stems from the fact that present teachers of agriculture, commercial, home economics, and technical studies were trained through the conventional and traditional teacher education programs approach which are experienced-based, that is, experiencing the curriculum over a fixed period of time rather than competency- or performance-based. Hence, a need arises to redirect the teacher education program such that its basic premise is a positive relationship between the effectiveness of a teacher in fulfilling his/her job expectations and the student's learning. For the preparation of such effective teachers of vocational technical education, the first step in the sequence of events is the development and validation of the professional vocational technical teacher competencies needed by prospective vocational technical teachers.

In this chapter, a review of the literature and research pertaining to professional vocational technical education competencies is presented in three
parts: (a) conceptions of competence in relation to competency-based education; (b) competency/performance-based teacher education concept; and (c) review of selected studies related to professional vocational technical education competencies for agricultural, commercial (business), home economics, and technical (trade and industrial) teachers.

**Conceptions of Competence**

The concept of competence was central and critical to this research project and it was imperative that this concept be briefly examined to place it in a conceptual framework. Teacher competence in the context of professional vocational technical education was the focus of this study, and teacher competence has implications for the improvement of teacher performance. Short (1985) presented four conceptions of competence which are relevant to this research project. "The first conception of competency is behavior or performance" (p. 4). A competency or a competence implies that such is a thing. Short (1985) further explained that:

> to be able to demonstrate competence as a particular behavior or performance is necessarily to be able to demonstrate something very specific and limited. To specify behaviors, as is done in behavioral objectives, or to specify performance, as is done in performance testing is to designate acts that can be accomplished quite independently of any ongoing purpose or intent. (p. 4)

The conception of competence, in this instance, is perceived to be the doing of particular things, behaviors, or performances.

The second conception is competence as command of knowledge which indeed implies choosing and knowing why and what one chooses. Furthermore, this conception implies something beyond "the doing of some behavior or performance" (p. 4), or the "skilling" of a person for particular activities. Short
(1985), in the conception of this kind of competence, explicitly stated that, "competence of this kind truly requires thinking. It has been no easy matter to determine what knowledge and skills teachers require if they are to be competent" (p. 4).

The third conception is competence as "degree or level of capability deemed sufficient" (p. 5) which implies that in utilizing standards or criteria of excellence, some judgment of competence has to be made. Conception of competence from this perspective means meeting some level set for some particular realms of activity on which a judgment of competence is desired. The determination of "a level of needed competence is, of course, a value judgment" (p. 5).

Finally, the fourth conception of competence is understood as a quality of a person or as a state of being" (p. 5). This approach is holistic, and indicating that when the nature and character of a particular quality has been identified and designated as desirable, a person has it or does not have it" (p. 5). This conception entails all the conceptual relationships that may bear upon the full exercise of the activity.

For a vocational and technical education program to be relevant to the needs of vocational students in the work place and society, the vocational teacher education program must incorporate human or interpersonal relations and environment dimensions into their program (Asselin & Finch, 1988). On the concept of competence, Asselin and Finch (1988) "see teacher competence as encompassing three dimensions: the task dimension; the human dimension; and the environment dimension" (p. 6). Teacher competence in the context of
professional vocational education in the affective domain of the teaching and learning process is of critical importance.

Competency-Based Education (CBE) and Competency-Based Teacher Education (CBTE) or Performance-Based Teacher Education (PBTE) are based on conceptions of competence, be the first, second, third, or fourth conception. Short (1985) expressed that the fourth conception of competence is the one that should be utilized by educators and he concluded, "it may become necessary to radically revise CBE and CBTE programs if it is too difficult or too limited to base them on conceptions one, two and three" (p. 6). This clearly expresses a theoretical framework valuable for a study of teacher competency in the exclusion of CBE and PBTE/CBTE.

The conception of CBE as a movement and an approach to education "grew out of a concern for individual needs and a way to assess the extent to which these needs were being met" according to Piper and Houston (1980, p. 37). They asserted that the CBE movement was initially adopted by educators "who hoped to replace vague goals with a comprehensive approach to the training of teachers" (p. 38). They further stressed that the goal of CBTE is to improve teacher performance (p. 39). Addressing the question: "What are the elements of teaching competency?" (p. 39), Piper and Houston expressed that "such elements include general education, special expertise in the subject area to be taught, knowledge of professional concepts, knowledge of learning theories, demonstrated expertise in instructional strategies and skills in human interaction, and demonstrated use of teaching tactics appropriate to the students being taught" (p. 39).
Hence, to discuss and put in context the concept of competence with the elaboration of CBE, be it Competency-Based Teacher Education (CBTE) or Competency-Based Vocational Education (CBVE), is inextricably inevitable. Finch and Crunkilton (1994), in their discussion of the assumptions underlying CBE, stated that "at the core of CBE is competency" (p. 254). It is with this background and understanding that in the review of literature and related studies, the concept of competence, CBE, and CBTE are interrelated.

**Competency/Performance-Based Teacher Education Concept**

Competency-based education is an instructional systems approach to education and CBTE programs incorporate all the characteristics of that instructional system. Dunn (1980), expressing the interdependency of teacher competence and CBTE, enumerated characteristics of an effective CBTE instructional system (p. 27):

1. determining the necessary teacher competencies,
2. describing such competencies in a teachable and measurable manner,
3. designing reliable and valid assessment instruments to measure these competencies,
4. employment of teaching strategies which reliably teach competencies to students, and
5. gearing instruction to individual students' capabilities.

Teacher competency and teacher performance, in the context of professional vocational technical education, remains inextricably wedded to CBTE. Piper and Houston (1980) rightly stated that, "the goal of CBTE is to improve teacher performance" (p. 39). Linking the concepts of competence and CBE is their definition of CBE as "an instructional process based upon the
concepts that there are identifiable abilities and skills which are observable and can be demonstrated and assessed" (p. 37).

Performance-based teacher education is an objective-oriented preparation of teachers and the improvement of their teaching. Elam (1971), noting the difference between performance-based teacher education and the traditional teacher education program, stated that the traditional teacher education can be described as:

experienced-based. That is, it assumes that if a student, planning to teach, experiences a specific number of courses in specified areas of study and undergoes some kind of student teaching experience, he is ready to begin teaching. Such programs are performance based only insofar as the required grade-point average can be considered a performance measure. They do not specify what prospective teachers need to be able to do or accomplish. (p. 1)

A performance-based teacher education program is not based on these premises, but rather based on the premise that there exists a positive relationship between the teacher's effectiveness and the learning of a student. In performance-based teacher education, the competencies which render a teacher effective are identified and then incorporated into the teacher preparation program. The prospective teacher is required to demonstrate the ability to perform these competencies to complete the teacher education program (Turner, 1979). Rosenshine and Furst (1971) confirm that research findings indicate that the assessment of teaching competencies or specific behaviors are much more valuable in preparing effective teachers than the traditional approach which is experienced-based.

Performance-based teacher education has a set of requirements that need to be met in a sequential manner for it to yield the desirable results. The sequence as noted by Rosner and Kay (1974) entails:
identification of the knowledge and behaviors of teachers . . .
preparation for the attainment of these specific competencies,
assessments of the extent of mastery of the identified competencies,
and validity studies to determine the extent to which competencies
acquired to specified levels of mastery are associated with change
in pupil outcomes. (p. 292)

Noting the use of the terms competency-based teacher education (CBTE)
and performance-based teacher education (PBTE), Crunkilton and Hemp
(1982) stated that in agriculture many teacher educators use the terms
interchangeably. Characterizing a competency-based program is the
expectation on the part of the student to demonstrate specified competencies
derived from a systematic analysis by recognized practitioners, Crunkilton and
Hemp observed. Advocates of CBTE, assert that the process is for the
improvement of the preparation and development of teachers, supervisors,
counselors, and administrators. Summarizing the advantages of CBTE, the
following was narrated by Bready and Applegate (1975):

1. the teacher attempts to define and behavioralize that goals will
   help teacher education institutions to clarify and justify their
   priorities and eliminate overlapping components of their
   programs,

2. the attempt to define essential teaching competencies should
   lead to greater analysis and possibly better understanding of the
   teaching process; this may lead to the discovery of new
   instructional methods,

3. the specification of goals in terms of behavior should help the
   student and the public see what the educational program hopes
   to achieve and to evaluate these efforts, and

4. more attention would be directed to the relation of theory to
   practice by the emphasis on "clinical" experience. (p. 1)

At the center of the pedagogical content for CBTE and PBTE programs are
the professional education competencies (knowledge, skills, and attitudes) that
are needed by beginning professional educators. McCormick and Peterson
(1967), however, noted some differences between CBTE and PBTE approaches, and further distinguished between the two. In their opinion, a CBTE program is a preservice professional program designed to provide students with professional competencies before they engage in the student teaching assignment. On the other hand, PBTE, they asserted, carried the connotation of a professional preparation program in which students develop a teaching skill and demonstrate the skill in an actual classroom setting (p. 55). They further observed, and noted, that CBTE operates with specific teaching competencies to which students get exposed, through simulated situations, during their professional education coursework. "The performance of each competency may, or may not, be performed and evaluated in an actual classroom situation" (p. 55).

McCormick and Peterson expressed that an effective teacher is one who has the ability to demonstrate the mastered set of professional competencies around which CBTE programs are built. They explained that these professional competencies constitute a foundation for the preservice program integrated into a "professional competency core" (p. 55). Such competencies are arranged sequentially to provide an articulated professional program eliminating uncalled duplications and, thus, a reduction in the overlapping of course content.

Section Summary

The literature reviewed in this section explored the concept of competence and why it is deemed importance in vocational education. The review revealed that competence is multidimensional. Teacher competence has implications for teacher performance in competency-based education. Furthermore, at the
center of competency-based education is competence, and teacher competence and performance are interrelated. Hence, competency-based teacher education is the process that prepares and develops professionals in education by equipping them with professional competencies to perform on the job. In this section, the literature also revealed that the concept of competence is of critical importance in professional vocational teacher education.

**Literature Related To Vocational Technical Education Competencies**

The educational reforms that are proposed in Swaziland secondary schooling in respect of vocationalizing the secondary school curriculum have a direct overall impact on teacher education. Prospective vocational teachers of agricultural, commercial, home economics, and technical studies will now be expected to fulfill job expectations of a different character, with respect to professional vocational education content, structure, and delivery. The educational reforms inevitably place new professional requirements on teachers of these studies. Researchers in Swaziland would do well to focus on professional vocational technical education preparation by examining the professional vocational competencies needed for teacher performance in the new role of a vocational technical educator. The studies reviewed below focus on professional vocational technical education competencies for vocational technical teachers.

Turner (1979) conducted a study with trade and industrial vocational instructors with the purpose of determining perceived importance of being able to perform the vocational teaching activities implied by competency statements
as well as perceived ability to perform the same vocational teaching activities. The hypotheses tested by the study were:

1. There will be no relationship between the instructor's perceived ability to perform the teaching activities implied by a teaching competency statement and the importance that he/she attributes to being able to perform these activities,

2. Instructors with a greater number of years of teaching experience will report a higher perceived importance of being able to perform the various teaching activities that are implied by a teaching competency, and

3. Instructors with a greater number of years of teaching experience will report a higher perceived ability to perform the various teaching activities that are implied by a teaching competency statement. (p. 44)

The findings revealed that there was a significant relationship between the way trade and industrial instructors perceived their ability to perform the vocational teacher competency statements and the importance attributed to performance. Therefore, the hypothesis was rejected. The conclusion was that trade and industrial vocational instructors' perceived ability to perform vocational teaching competencies related with the importance attributed to the competency statements.

As a function of the number of years of teaching experience and the perceived ability to perform the teacher competency statements, Turner rejected the hypothesis for all 10 competency categories/areas. Similarly, the hypothesis pertaining to perceived ability to perform the teacher competency statements was rejected for all 10 competency statements.

Turner's (1979) 10 vocational teacher competency statement categories were derived from the work of Cotrell, Chase, and Molnar (1972b) on the Vocational Performance-Based Curricula Project at The Center for Vocational Education.
Education, The Ohio State University. The Project identified and validated Vocational Performance-Based Teacher Education (PBTE) teacher competencies considered "needed by secondary and postsecondary vocational teachers across the seven fields of vocational education (agricultural education, business and office education, marketing education, health occupations, home economics, technical education, and trade and industrial education)" (p. 44). This constituted Phase I of the Project. Phase II of the Project identified and verified vocational teacher competencies, refined them, and divided them into 10 categories which were further formulated and developed into a series of modules as follows:

1. program planning, development, and evaluation (11 modules);
2. instructional planning (6 modules);
3. instructional execution (39 modules);
4. instructional evaluation (6 modules);
5. instructional management (9 modules);
6. guidance (5 modules);
7. school-community relations (10 modules);
8. student vocational organizations (6 modules);
9. professional role and development (8 modules); and
10. coordination of cooperative education (10 modules).

The identification and development of these vocational teacher competencies have implications for the vocational technical teacher education curriculum. These vocational technical teacher competencies have relevance to this study with its focus on determining and analyzing perceived self-reported importance of the vocational technical teacher competencies and perceived self-reported ability to perform the vocational technical teacher competencies by Swaziland teachers of agricultural, commercial, home economics, and technical subjects.

Bucher (1985) conducted a study designed to investigate if similarities and differences among seven occupational service areas in vocational education
existed in respect of their perceptions of the major purposes of vocational education. The occupational service areas studied were: (a) agricultural education, (b) business and office education, (c) marketing education, (d) health occupational education, (e) home economics education, (f) technical education, and (g) trade and industrial education. The major vocational education objectives utilized the following six categories: (a) responsibility for individual student needs, (b) involvement with business and industry in the development and evaluation of programs and curricula, (c) involvement with additional opportunities for education, (d) responsibility for social needs, (e) procedures to be utilized for the maintenance of professional development, and (f) areas of commonality for the profession to function as a unified field of study.

The results with respect to the seven occupations service areas were varied. In reference to the seven groups' different and similar perceptions, Bucher (1985) found that for 37 items, the seven service areas perceived the purpose of vocational education rather similarly and thus, were not significant. However, persons in the technical education and trade and industrial education service areas rated these 37 items somewhat lower than did the other groups. In respect to 21 items which were perceived significantly different by the seven service areas, 18 items were rated higher by the home economics service area. Technical education with its lower rating contributed to 7 of these 18 items being significantly different, whereas, the Trade and Industrial Education service area contributed to 5 of the 18 items falling in this group. The review of Bucher's study is pertinent to this study in view of the fact that the investigation had the purpose of determining, analyzing, and describing differences among four vocational service areas in the Swaziland context.
Simandjuntak (1984), in a study designed to analyze and assess professional competencies required by vocational and technical teachers in Indonesia, distinguished between professional competencies and general competencies by stating that, "professional competencies are concerned with the knowledge and skills that the teacher requires in order to teach effectively and efficiently" (p. 11). However, general competencies were noted as referring "to skills, knowledge, and ability in other subjects, such as science, language, mathematics, psychology, sociology which are helpful for the development of competencies in technical and professional areas" (p. 11). The population of the study was beginning teachers, semiexperienced teachers, experienced teachers, teacher educators, and instructional supervisors in vocational technical education. The basis for the selection of teachers at different levels of experience was to reflect vocational technical teacher preparation competencies needed by newly employed (beginning teachers) which would demonstrate immediate practical needs; semiexperienced teachers would indicate in-service training needs, whereas, experienced teachers would "present views on recurring needs of experienced teachers" (p. 12).

Simandjuntak's study identified 100 professional vocational competencies which were classified into 10 competency areas, namely: program planning, development and evaluation, instructional planning, instructional execution, instructional evaluation, instructional management, guidance, school community relationships, student vocational organization, professional role and development, and coordination of cooperative education. The 100 professional vocational technical competencies were rated on three Likert-type scales, namely: level of importance, level of knowledge, and level of performance.
Kellerman (1981) studied teaching competencies of vocationally certified secondary school business teachers, office education coordinators, and special needs coordinators by determining if competencies were generic, and to what degree the rankings of competencies by these professionals agreed and disagreed. The 184 competency statements were categorized into five areas, namely: planning of instruction, execution of instruction, evaluation of instruction, management, and guidance. The results revealed that vocational business teachers and office education coordinators perceived management competencies as of greater importance in contributing to on-the-job-effectiveness. Regarding guidance skills, all three groups indicated an awareness of the importance of such skills with students. All three groups attributed less importance to execution of instruction than to any of the remaining four competency areas. Females and males in the groups differed, with the females' rankings higher than males' rankings in four competency areas but not in guidance.

A study conducted by Sirintantikorn (1979) was designed to determine existing teaching competencies of vocational business teachers and also ascertain the desired "ideal" teaching competencies for such vocational teachers. The vocational business teachers studied were those at the upper secondary school level in Thailand as well as subcollegiate business education instructors. The two groups were compared as to their perceived teaching competency needs as an attempt to locate areas needing improvement and also promote cooperation between business vocational schools and business teacher education institutions in Thailand. Teaching competencies identified as being of the highest priority for improvement were:
1. demonstrating a concept/principle,
2. directing students in the application of problem-solving techniques,
3. establishing student performance criteria,
4. determining student grades, and
5. evaluation of own instructional effectiveness.

In their work, Graves and Hedrick (1990) summarized needs identified by student teachers for the improvement of the preparation of business teachers. A total of 421 student teachers from 102 business education programs responded to a questionnaire to assess perceptions of their respective programs in business education teaching methodology. These respondents strongly felt a needed emphasis on the following areas of preparation of business education teachers:

1. handling the first day and week of school,
2. better preparation in classroom time management,
3. writing objectives for particular classes,
4. providing for special needs students,
5. writing curriculum materials, and
6. getting and keeping students motivated. (p. 34)

Student teachers in business education further expressed a need for better preparation in human relations, evaluation and testing skills, classroom management and discipline, and student organizations as they relate to advisory responsibilities.

The Johnson (1979) study, whose purpose was to determine if significant differences existed between competencies believed to be important by teacher educators and administrators, and teachers as practitioners in the field, compiled and validated professional competencies for business teachers. "Each statement focused on what a teacher can do to facilitate learning" (p. 45). The 92 competencies were categorized into the following areas: professional competencies, instructional competencies (curriculum planning, teaching, and
evaluation), organization and management competencies, and communication and guidance competencies. Rating the competencies on a 5-point Likert-type importance scale, all respondents gave the highest importance rating to the competency of analyzing student progress to determine effectiveness of instructional methods whereas, the competency of identifying and utilizing the services provided by professional education associations received the lowest importance rating. Teachers rated highest the competency of maintaining classroom atmosphere appropriate to learning, and yet identification and participation in business education associations received the lowest importance rating. This importance rating was determined by 12 judges (validations).

To determine the degree of vocational teacher preparedness, teachers rated the adequacy of the preparation using the 92 competencies. Teachers expressed less than adequate preparation in more than 50% of the professional competencies. In the competency area of instruction (curriculum planning), teachers expressed inadequate preparation in 57% of the competencies. In the vocational teaching competencies, teachers indicated they had adequate preparation in 75% of the competencies. In evaluation, teachers expressed adequate preparation in all the competencies. In the category of organization and management, teachers indicated less than adequate preparation for 69% of the competencies. For communication and guidance category, teachers expressed 80% adequate preparation.

Kruetzer and Weis (1988) conducted a study to validate teaching competencies for secondary occupational home economics. A demographic instrument was designed to collect data from the secondary occupational home economics teachers. Data collected were years of teaching home economics
and/or occupational home economics, technical specialty taught, certification status, and educational status. Data were subjected factor analysis, and 16 factors from the teacher education competencies were constructed and tested.

The 16 factors were:

1. management of student work experience,
2. organization and operation of laboratory equipment,
3. personalized guidance of students and advisory committee,
4. development of the occupational curriculum,
5. value of the occupational teacher role,
6. public relations with the community,
7. cooperation with others,
8. assistance with the career development of students,
9. administration and management of the programs,
10. orientation to work values,
11. overcoming work-related problems of students,
12. planning the occupational program,
13. assistance with student's occupational growth,
14. preparation for occupational instruction,
15. maintenance of safety and health standards, and
16. implementation of the occupational program. (p. 54)

Data were analyzed by educational background of respondents using the analysis of variance on the 16 factor scores. Follow-up test results aimed at discerning differences between means showed that respondents with associate degrees had a mean score which differed significantly from subjects with a masters degree on the factor: cooperation with others.

Correlation analysis of four of the demographic variables, namely, years of teaching home economics, years of teaching occupational home economics, certification status, and educational background were conducted using Kendall's Tau for ordinal data. The variable that produced a significant (p<.01) correlation was certification status (r=.27). Organization and operation of laboratory equipment, as a factor, revealed a significant relationship to certification status. Respondents with more accomplished teacher certification
placed greater importance on teacher competencies in the organizing and operating of laboratory equipment than respondents with lesser certification status.

In a study of inservice needs assessment of home economics educators, Beavers and Charlison (1986) identified not only subject matter, but also the teaching process and the professional concerns of secondary home economics teachers, community college teachers, and extension home economists. For the category of, "Teaching process and professional concern," ranked number one was, "Evaluation of programs and learners" with 75% of the educators indicating this need. Ranked number two, with 71% of the educators identifying the need, was "Instructional techniques and learners." The "Instructional materials and equipment" area was ranked number three, with 69% of the educators indicating a need.

Ebert and Torrie (1986) conducted a study focused on components of a vocational home economics teacher education program with home economic student teachers enrolled in the required pre-student teaching methods course. The 35-item opinion/reaction questionnaire was developed for the study with the purpose of determining the degree to which student teachers in a pre-student teaching methods course perceived an adapted microteaching experience to be effective in helping them become prepared for student teaching, and to measure the extent to which the students perceived acquisition of teaching competencies. The 35 items were placed under the following five factors:

1. accommodation to the teacher role,
2. perceived effectiveness of the lesson,
3. awareness of value of teaching/learning experiences in the teacher education program,
4. realization of the impact of variability in student responses to educational schemes, and
5. rationale use of written objectives.

A study conducted by Dean (1982) (cited in Bucher, 1985) "designed to determine the perceived importance of standards for evaluating vocational education programs" (p. 43) utilized the following vocational education evaluation categories:

1. curriculum and instruction,
2. placement and follow up,
3. administration,
4. student recruitment and selection,
5. facilities and equipment,
6. philosophy and objectives,
7. efficiency and effectiveness,
8. advisory committees,
9. public relations,
10. ancillary services, and
11. student organizations. (p. 59)

After a review of literature, Dean (1982) generated evaluation items under each of the 11 categories. The validation of the items was conducted by a panel consisting of vocational teachers, teacher educators, supervisors, and advisory committee members. When Dean later asked the panel to respond to 82 statements under the 11 categories on a Likert-type scale ranging from 6.0 (very important) to 1.0 (very unimportant), the following results were obtained: perceived as important (5.0) or above were the first seven evaluation categories and the remaining four were rated as somewhat important (4.0).

The goals and delivery modes for preparing vocational technical teachers afford such teachers an opportunity to acquire a sound background in general education and pedagogical competencies to facilitate the teaching/learning process in both the classroom and laboratory/workshops settings. Reflecting on the dynamics and nature of vocational education, the delivery methodologies
place an emphasis on certain aspects that the general teacher education programs would not demonstrate. Glenn and Walter (1991), observing the requirements for vocational teacher certification, stated that, "trade, technical and health occupations, and specific agricultural subject areas have historically stressed significant work experience as a major prerequisite to employment as a teacher" (p. 102). However, they further took note of the fact that "technology (industrial arts), business/distributive, general agriculture, and home economics education have required a baccalaureate degree in the respective discipline as the major requisite" (p. 102). "Vocational teacher education programs provide preparation for classroom, supervisory, and administrative positions" (p. 104).

In order to be relevant to the vocational student, workplace, and society, the vocational technical teacher education program must identify professional competencies that vocational teachers must possess and have the ability to perform, inclusive of the human and environmental dimensions in addition to the task dimension. The dynamics of the world of work for the vocational teacher basically consist of people who vary in educational preparation, work experience, work expectations, temperament, attitude, skills, and values. These components, in any school organization, are functionally and operationally interrelated and interdependent to serve the common purpose. The focus of this research is vocational technical teacher competence in professional education. The Cotrell et al. (1972a) studies concentrated on the instructional tasks with very little attention given to the human and environment dimensions. Asselin and Finch (1988) see teacher competencies as encompassing three dimensions: the task dimension, the human dimension, and the environment dimension." Looking at competence in a holistic manner means that the three
dimensions must be examined individually and collectively" (p. 6). This approach is a multidimensional framework for competence. The aforementioned observations explicitly highlight a need for professionals in education to broaden their perspectives of competence.

The task dimension, the most tangible, is inclusive "of teaching responsibilities, such as preparation, implementation, and evaluation of instruction" (p. 15). The human dimension, which is the affective domain, they noted, "is consequently reflective of skills in working with other human beings. Included might be human relations expertise, empathy, creativity, and flexibility" (p. 15). As vocational technical teachers perform their tasks, interpersonal competence is called for in interacting with vocational students, teachers, parents, and administrators. Involvement of others goes beyond the tasks dimension in professional vocational competence and permeate the work environment, yet it remains an integral part of professional education competence. Finally, the environment dimension, the most difficult to measure, thus, deterring professionals from including it as part of a teacher education program "reflects areas in which the teacher may function. Some teachers work in rural school environments while others are employed in inner city or urban environments" (p. 15). The environment dimension focuses on questions such as: Where will the teaching take place? Under what conditions will the teaching take place? Such questions have implications for a comprehensive vocational technical teacher preparation curriculum.

Gregson (1990) conducted a study whose objectives were: a) to identify work attitudes and values that secondary trade and industrial teachers teach; b) to describe the pedagogical techniques they use to teach them; and c) "to
explore whether work values and attitudes are taught incidentally with cognitive and psychomotor skills, or whether instructors prepare specific learning activities to teach work values and attitudes" (p. 16). The rationale for the study was expressed as arising from existing data in respect of the pedagogical techniques that trade and industrial secondary school teachers use in teaching affective work competencies to vocational students. The results of the study would provide useful data for vocational secondary teachers, curriculum development specialists for vocational programs, advisors for vocational student organizations, and vocational technical teacher educators.

In the Gregson study, secondary trade and industrial teachers considered successful identified the following affective work/interpersonal clusters as representative of the work values and attitudes they taught to their vocational students:

1. ambitious,
2. cooperative/helpful,
3. adaptable/resourceful,
4. independent/initiative,
5. accurate/quality of work,
6. pleasant/friendly/cheerful,
7. follow directions/responsive,
8. careful/alert/perceptive,
9. considerate/courteous,
10. emotionally stable/judgmental/poised,
11. persevering/patient/enduring/tolerant,
12. neat/ orderly/personal appearance/manner,
13. dependable/reliable/responsible, and
14. efficient/quantity of work/achieving/speedy. (p. 142)

The pedagogical techniques that these successful trade and industrial secondary teachers used to teach their vocational students ranged from most frequent to least frequent as follows:

1. reward structures,
2. group discussion,
3. one-on-one counseling,
4. role modeling,
5. role playing,
6. guest speakers,
7. team building,
8. problem solving,
9. individualized instruction,
10. lectures,
11. note learning, and
12. citizenship. (p. 143)

Democratic, rather than indoctrinational, instructional techniques were the frequently used strategies in the teaching of work values and attitudes to vocational students.

In summary, the identification of the affective work competencies/interpersonal competencies and the pedagogical techniques used by successful trade and industrial secondary teachers have direct implications for the other vocational education program areas, namely, agricultural, commercial, and home economics subjects. Such research should be extended to include the other program/service areas, specifically, vocational teacher education, supervision, and curriculum development. Difficult it may be as an area of inquiry, it cannot be left out of the professional vocational technical education teacher competence research equation (Asselin & Finch, 1988).

Rosenshine (1986), presenting research findings on effective teaching in industrial education and training, explored six teaching functions with what he called systematic teaching. The effective teaching functions presented do well in well-structured teaching/learning environments. Though they can, and indeed are used widely in other teaching areas, they are of effect in industrial vocational education. Rosenshine stated that "the results have consistently shown that when teachers modify their instruction so that they do more systematic teaching, then student achievement improves" (p. 17). The six
teaching functions with systematic teaching with particular reference to industrial education and training were given as:

1. daily review,
2. presenting new material,
3. conducting guided practice,
4. providing feedback and correctives,
5. conducting independent practice, and
6. weekly and monthly review. (p. 8)

Anderson (1980) conducted a study with the purpose of determining the perceptions of postsecondary vocational instructors and vocational administrators regarding the needs of in-service education in professional vocational education. Two of the specific objectives of the study were:

To examine the perceptions of the vocational administrators and the vocational instructors concerning the relative importance of each of the 53 selected performance elements [statements], and to determine if there were any significant differences between post-secondary vocational administrators and postsecondary vocational instructors regarding their perceptions of the in-service professional development needs of the vocational instructors. (p. 10)

The vocational service areas represented in the study were: agriculture, marketing education, health occupations, business and office education, home economics, trade and industrial, and special services, such as vocational guidance, job development and placement. The categories of the competency statements were: course planning and instruction, classroom/student management, evaluation, coordination, special needs, program planning, post instructional, public relations, human relations, and personal and professional development.

The findings revealed that the performance competency statements categories perceived to be most important by vocational guidance were postinstructional, student services, public relations, human relations, evaluation,
course planning and instruction, and program planning. However, vocational administrators perceived as most important, evaluation, public relations, course planning and instruction, and personal and professional development.

Shippy (1981) conducted a study to determine the professional competencies needed by beginning teachers of agricultural/agribusiness education as perceived by two selected groups of agricultural teachers and a group of school supervisors of agriculture. A questionnaire of 240 professional competencies was developed with vocational teacher competencies divided into the following categories:

1. program planning, development, and evaluation,
2. planning of instruction,
3. execution of instruction,
4. evaluation of instruction,
5. student vocational organization,
6. supervised occupational experience,
7. management,
8. guidance,
9. school-community relations, and
10. professional role and development. (p. 30)

A 5-point Likert-type scale was used to rate the need for the competencies in these categories. The results revealed that the two groups of teachers and the group of supervisors rated 235 competencies at the same level. Fifteen of the 240 competencies were rated significantly different at the .05 level by the three groups. The two groups of teachers and the supervisors placed approximately the same emphasis on the importance of the professional vocational competencies. The number of competencies rated 4.00 or higher were 103, 116, and 114 for inexperienced teachers, experienced teachers, and supervisors, respectively.

Moonsie (1979) conducted a study in Trinidad and Tobago to identify and validate vocational competencies considered important by teachers of industrial
education in the secondary schools of Trinidad and Tobago. The population of study consisted of a sample of 74 industrial secondary school teachers from a total population of 160 junior and senior high schools. Specifically, the study attempted to determine the importance that junior and senior secondary school teachers attached to selected professional competencies as well as establish if differences existed between these teacher groups in their responses.

   The Moonsie study revealed the following findings:

   1. Of the 100 professional competencies, 99 were rated and found relevant by 50 percent and 60 percent of the junior and senior high school teachers, respectively;

   2. The competencies were rated as useful by 95 percent and 94 percent of junior and senior high schools, respectively;

   3. On a seven point scale of importance (ranging from slightly to essential), 55 of the competencies were rated as very important and essential and 44 as moderately important and slightly important; and

   4. When the two groups of teachers were tested for significant differences, 88 of the competencies were found to have no significant differences between the groups while 12 had significant mean differences.

Concerned about the problems that had besieged the vocational technical education subsector of the education sector of Nigeria, Antia (1980) conducted a study to identify, isolate, and categorize problems of technical education in Nigeria. With the results of this research investigation, the researcher hoped they would assist the instructors and administrators of polytechnics and colleges of technology to better understand the problems of technical education in Nigeria and, thus, explore procedures needed to seek solutions to these problems.
The problems identified that pertained to the area of faculty and instruction were: (a) the scarcity of faculty in highly professional fields as accounting and engineering, (b) lack of adequate formal pedagogical training and sufficient occupational experience, (c) the need for qualified Nigerian teachers in the polytechnics and college of technology, and (d) the loss of qualified instructors to other occupational sectors. With respect to philosophy and planning, the study identified the need for developing a philosophy for vocational technical education with relevance to the situation in Nigeria and a central agency responsible for planning vocational technical education in Nigeria.

The Antia (1980) study, in the sphere of curriculum and method of instruction, identified several major problems encountered by technical education in Nigeria, namely:

1. grouping together, for purposes of instruction, students from technical institutes with those from secondary commercial schools;

2. lack of coordination in curriculum development between secondary schools and technical institutes;

3. lack of adequate occupational/industrial experience among instructors, thus, incapable of supervising and assessing adequately students' progress during their internship with business and industry; and

4. hesitancy of instructors to experiment with innovative occupational approaches to instruction.

In a category that Antia (1980) labeled "distinguishing characteristics" several problems pertaining to technical education were identified as:

1. limited opportunities in students' participation in, and lack of cooperation from business and industry occupational sectors;

2. lack of government provision of incentives to business and industry for greater involvement of students in occupational
3. lack of communication networks inclusive of validated, current, accurate, and continuous curriculum date for school program offerings as well as availability of internship opportunities within the school community vicinity.

Imade's (cited in Antia, 1980) study to establish the magnitude of agreement among cabinet Ministries of Education in the Federal Government of Nigeria with regard to the present and future planning stages revealed that:

1. provision for qualified teachers was rather at the trial stages;

2. there was lack of research, documentation, and dissemination of researched data on vocational technical education related issues and problems; and

3. whatever program planning sort of existed was not directed to the needs of Nigeria of the time.

The Government of Kenya in East Africa, in an attempt to produce employment opportunities and foster economic growth, established a national policy of training people for entrepreneurship and self-employment. Making reference to teacher preparation in vocational technical education, Nelson and Mburugu (1991) stated that "competent teachers are the key to successful implementation of this project" (p. 35). The Kenya Technical Teachers College based in Nairobi is the only college where vocational technical and business teachers are prepared for secondary schools and technical training institutions.

The Kenyan government policy of producing expanded employment opportunities and economic growth by promoting self-employment, through entrepreneurial and vocational education in the schools of Kenya, is aligned with the Swaziland government national policy of introducing vocational education in the secondary curriculum of Swaziland schools. As Nelson and
Mburugu (1991) explicated that the competence of teachers to implement a vocational education program is key to the success of such an entrepreneurship education, the Kenya and Swaziland government policies for vocational education have strong implications for vocational technical teacher preparation both in terms of preservice and inservice education. This logically leads to the purpose of this study, that of identifying the vocational technical education competencies needed by vocational teachers in Swaziland.

In a study conducted in Swaziland with the purpose of determining the perceptions of professionals in the agricultural education program area pertaining to the teacher preparation program in agriculture, Dlamini (1986) reported the perceptions of these professional respondents in the area of skill training and other areas. Assessing the adequacy of skill training on a 6-point Likert scale of very inadequate represented by a 1 on the lowest end, and very adequate represented by a 6 on the upper most end, Dlamini (1986) reported that the agricultural education professionals considered skill training to be somewhat inadequate in the land use and mechanization area of the program. The other areas of the program, namely, professional education, crop production, animal science, and agricultural economics were all rated as somewhat adequate in skill training.

In his conclusions and implications of the study, Dlamini stated that "skill training was inadequate in the teacher preparation program" (p. 125). Furthermore, he observed that there was a need for the program to establish coordination and linkage activities with other agencies in meeting the identified inadequacies in skill training.
The Government of Lesotho, a country in Southern Africa, in an attempt to redress the problem of declining agriculture that had led the country to be dependent on the Republic of South Africa for food importation, launched a Lesotho Agricultural Production and Institutional Support (LAPIS) project to improve agricultural production. Bobbitt (1991) reporting on this project from first-hand experience, stated that American Agriculture international and their subcontractor were requested to provide assistance to Lesotho Agricultural College in the improvement of the training of agriculture and home economics diploma students. According to Bobbitt (1991), the Diploma Program in Agriculture and Home Economics at the Lesotho Agricultural College (LAC) was restructured and extended in duration from two to three years to accommodate a new vocational concept, the Student Enterprise Project (SEP).

Project SEP has relevance to the study at hand in view of the emphasis placed on entrepreneurial education competencies which constituted the success story of the SEP project. The possession of such competencies, which are taught in local vocational technical education school programs through supervised occupational experience programs, is critical to the success of any program that goes by the name vocational technical education; hence, the relevance of the Lesotho SEP project to this study.

**Chapter Summary**

In this chapter, a conception of competence, competency/performance-based education, and a review of the literature in professional vocational technical education competencies were presented. The Cotrell et al. (1972a)
study served as a basis for later studies that focused on professional vocational technical education competencies for secondary school teachers. The impact of Cotrell's study was reflected in all the studies reviewed. This study was basically modeled after the Cotrell study with respect to the conceptual framework. However, there were some variations from the Cotrell study in view of the fact that this study incorporated the human dimension, and to a lesser extent, the environment dimension in addition to the task dimension of competence. Another variation from the Cotrell model or framework arose from the fact that the results of this study will be for application in a developing country (Swaziland) located in Subsaharan Africa with a different socioeconomic setting. Unlike in the Cotrell study, in this investigation the focus group interview was utilized to develop the competencies.

The review of the literature and studies in this chapter was expanded in scope to entail human and environmental dimensions, in addition to the instructional task dimension. It was revealed that the task dimension alone would be less than adequate in the identification of professional competencies needed by vocational technical education teachers. Competence is multidimensional in scope and, thus, should reflect all three dimensions.

Demographic variables of gender, years of teaching experience, certification (qualification) status, and educational background are of statistical and practical significance with respect to vocational teacher competence. These variables' impact indicated that they also influence the dependent variable of vocational teacher ability to perform a competency or the teacher's perceived importance of a given competency statement. Hence, analysis of these variables were included in this investigation.
From the review of literature and research conducted in this area, a list of competency statements was developed and categorized into several areas (Cotrell et al., 1972a) with the final grouping reflecting the results of focus group workshop interviews held in Swaziland. The categories were:

1. program planning and development in vocational technical education,
2. school–community relations in vocational technical education,
3. school and business–industry relations in vocational technical education,
4. curriculum development in vocational technical education,
5. facilities and equipment in vocational technical education,
6. planning and executing vocational technical instruction,
7. career guidance for vocational technical students,
8. vocational technical student organization/clubs,
9. vocational technical education program evaluation,
10. professional development in vocational technical education, and
11. interpersonal relations in a vocational technical education environment.
Chapter 3
RESEARCH DESIGN

Chapters 1 and 2 focused on the conceptions of competence, competency/performance-based education, and the review of related literature. The purpose of this chapter is to describe the population and sample, the development of the instrument, the procedures used in data collection, and the statistical techniques utilized in the analysis of data.

The major purposes of this study were to identify the professional vocational technical education competencies needed by Swaziland agricultural, commercial, home economics, and technical teachers, and to assess the teachers' perceived importance of, and the perceived ability to perform these competencies.

Description of the Population and Sample

The population for the study consisted of Swaziland secondary/high school teachers of agricultural, commercial, home economics, and technical subjects. The total teacher population was 665 and was divided into subpopulations of agricultural teachers--200, commercial teachers--183, home economics teachers--140, and technical teachers--142. To ensure representativeness of the population, a stratified random sample was selected and the procedure utilized in determining the number of teachers from each subpopulation was proportional allocation (Hinkle, Wiersma, & Jurs, 1979). Based on the size of each of the four subpopulations, and with the total
population of 665, the proportional percentage representation for each subgroup was as follows: agriculture--30%; commercial--28%; home economics--21%; and technical--21%.

For purposes of this study, a sample of 152 was determined to be of adequate size for representation of the population. The computation for the sample target of 152 respondents was based on the formula given below (Hinkle, Oliver, & Hinkle, 1985, pp. 275-276):

\[ nf = \frac{n_i}{1 + (n_i/N)} \]

Where:
- \( nf \) = the required sample size for a finite population
- \( n_i \) = the required sample size for an infinite population
- \( N \) = the population size

\[ nf = \frac{197}{1 + (197/665)} \]
\[ nf = \frac{197}{1 + .2962} \]
\[ nf = 151.98 \approx 152 \]

The above formula, the finite population correction, adjusts the sample size when there is less than an infinite population. The formula is used when the measurement scale of the response measure is interval or ratio. The above computation of the sample size assumed (a) a two-tailed test, (b) an effect size of .20, (c) an level of statistical significance (alpha) at .05, (d) a statistical test power of .80, and (e) and thus required a sample for a finite population of 197. "The effect size is the acceptable difference between the sample mean and the population mean expressed in standard deviation units." (p. 275)

However, it was estimated that a return rate of 80% could be expected, thus, to assure that 152 usable returns would be received, the population was
oversampled for a target study sample of 191 teachers. For a sample target of 191 respondents, the sample needed from each subpopulation was: agriculture--57, commercial--54; home economics--40; and technical--40. Table 1 summarized the populations, subpopulation, and sample size data.

The listing of all the teachers by name and by specialty area (subpopulations) were provided by the senior inspectors from the Ministry of Education and constituted the sampling frame. A table of random numbers (Jones, 1985) was used to select the sample from each subpopulation.

Instrument Development

The task of developing an appropriate list of professional vocational technical education competencies for this study was a concern. The concern stemmed from the fact that the findings of the study were for application in a rather different sociopolitical and economic setting (Swaziland) from which the main portion of the review of literature for the study was generated (United States of America). Being aware of this limitation, an attempt was made to search for appropriate and relevant literature and studies (Antia, 1980; Berhe, 1984; Bobbitt, 1991; Moonsie, 1979; Nelson & Mburugu, 1991) in countries with similar educational, socio-political, and economic conditions as in Swaziland.

A three phase procedure was utilized for the development of the survey instrument for this study. The three phases were: (a) using a focus group interview, through the medium of two, one-day workshops, with a Swaziland professional panel of experts in agricultural, commercial, home economics, and technical studies (Appendix A). These professionals were teacher educators,
### Table 1

**Summary of the Population, Subpopulation, and Sample Size Data**

<table>
<thead>
<tr>
<th>Population Subgroup</th>
<th>Population Subgroup Size</th>
<th>Percent of Total Population</th>
<th>Proportional Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>200</td>
<td>30</td>
<td>57</td>
</tr>
<tr>
<td>Commercial</td>
<td>183</td>
<td>28</td>
<td>54</td>
</tr>
<tr>
<td>Home Economics</td>
<td>140</td>
<td>21</td>
<td>40</td>
</tr>
<tr>
<td>Technical</td>
<td>142</td>
<td>21</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>665</strong></td>
<td><strong>100</strong></td>
<td><strong>191</strong></td>
</tr>
</tbody>
</table>
senior inspectors, and curriculum development specialists drawn from the University of Swaziland and the Swaziland College of Technology, Ministry of Education headquarters, the National Curriculum Center, respectively, to generate a universe of potential professional vocational education competencies needed by secondary teachers; (b) supplementing the universe of potential competencies developed in Phase One with additional competencies identified from the literature and studies reviewed and then merging them into a composite listing of professional vocational technical education competencies; and (c) assuring the content validity of the composite listing of potential professional vocational technical education competencies and their relevance to Swaziland and finally, pilot testing the developed instrument. A moderator guide, whose purpose was "to ensure the moderator covers the desired materials and with the appropriate priority" (Greenbaum, 1988, p. 76), was used by the researcher (and workshop moderator) through the three phases of the focus group interview workshops.

Phase one. Noting the uses of focus groups at the beginning of a new program and in generating information for questionnaires, Krueger (1988) asserted that "focus groups have provided valuable background information prior to mail-out surveys" (p. 32). In the development of the instrument for this study that would be relevant to and appropriate for the situation in Swaziland, the involvement and full participation of Swaziland professionals was an initial key factor. The involvement and participation of these professionals, consisting of teacher educators, senior inspectors, and curriculum specialists, occurred during this first phase of instrument development. These professionals served as a panel of experts through the medium of focus group interview workshops.
The panel of experts performed the function of generating a universe of potential professional competencies that were relevant to and important for Swaziland secondary vocational technical education. The process was interactive in style using a semistructured interview and activity during which the panel of experts exchanged ideas, views, and opinions in relation to the focused question. The researcher functioned as a moderator following a moderator guide.

In preparing for focus group sessions, Greenbaum (1988) presented 10 key steps to be implemented prior to conducting a focus group research session, namely:

1. defining the situation,
2. securing agreement to the research plan,
3. selecting the moderator,
4. obtaining a detailed proposal from the moderator,
5. briefing the moderator,
6. defining the parameters of the groups,
7. discussing preparation of moderator guide,
8. determining the nature and scope of the moderator report,
9. developing a flow chart for the focus group implementation process, and
10. agreeing on the rules and parameters of the session. (p. 25)

The guidelines provided by Greenbaum were utilized in this research project and a brief discussion was held on each step to determine how it fit into the research project. Steps to be taken as suggested by Greenbaum (1988, p. 25) were:

1. **Defining the situation**. In this component of the focus group session or initiation document, five areas are covered, namely: background, objective, utilization, composition, and budget. For purposes of this research project this was undertaken by the researcher.

2. **Securing agreement to the research plan**. Permission of the agencies and the individuals that participated in the study was
sought by the researcher with the Ministry of Education, University of Swaziland, the Swaziland College of Technology, and the National Curriculum Center. Insofar as the technical aspects of the research were concerned, the graduate student's research committee was in full agreement with the proposed research plan.

3. **Selecting the moderator.** The moderator is the most significant variable that determines whether the focus group generates high quality information. The researcher in this study performed the function of moderator/facilitator assisted by a recorder.

4. **Obtaining a detailed proposal from the moderator.** The moderator (researcher in the case of this study) prepared a detailed written proposal for this component of the preparation for the focus group session; six elements were entailed: background, objectives, timing, implementation, report format, and cost. For purposes of this study these elements were discussed and indeed accommodated in the research methodology chapter of this research project.

5. **Briefing the moderator.** With the researcher as moderator in this research project, the briefing element was accommodated.

6. **Defining the parameters of the group.** This component of the research project preparation had five areas to be addressed, namely: number of groups to be conducted and period of time, number of persons in the group, geographic area where the group(s) were held, composition of the group(s), and the stimuli to be used to elicit responses from the respondents.

7. **Preparing moderator guide.** "One of the elements of the focus group process that is most likely to have a significant impact on the quality of the information generated from the sessions is the moderator guide, and outline of the material that should be covered in the group session" (p. 31). Greenbaum stated that there are two main areas to be covered, namely, (a) responsibility for developing the guide and (b) the approval process of the guide. For purposes of this study, the researcher developed the guide and the major advisor approved the guide. The guide was essential for the reason that: "It is the implementation vehicle that determines what data will be collected in the group session" (p. 32). Furthermore, the guide ensured that the "objectives for the focus group session are achieved" (p. 32).

8. **Determining the nature and scope of the moderator report.** Greenbaum explained three schools of thought with regard to
moderator report, namely: (a) no written report, (b) summary report, and (c) comprehensive report. For this research project, the comprehensive report approach was pursued. This type of report provided a thorough summary of the focus group sessions to the extent that the output from the group was clear to any reader who may not have attended the session. "It presents a detailed outline of all aspects of the group (following the outline of the material from the moderator guide) and includes a large number of verbatim comments excerpted from the tapes" (p. 33). The comprehensive report was essentially the list of professional competencies identified in the workshop by the panel of Swaziland experts.

9. **Developing a flow chart for the focus group implementation process.** The flow chart was developed by the researcher along with the moderator guide since the two needed to be synchronized.

10. **Agreeing on the rules and parameters of the sessions.** The parameters were established to the extent that participants were identified. Details on rules and parameters were established with the participants in consideration of the cultural context.

Morgan (1988) clearly indicated, as he expanded on the uses of focus groups that "from a social science point of view, focus groups are useful either as a self-contained means of collecting data or as a supplement to both quantitative and other qualitative methods" (p. 10). The usefulness of focus groups goes beyond the initial or exploratory stages of survey research. "They can augment the pretesting that is necessary to evaluate the survey instrument" (p. 34). Morgan, however, hastened to state that "the absence of explicit descriptions of how to triangulate focus groups and surveys is probably a result of the relative rarity of this combination" (p. 33). The focus group interview which was utilized in the first phase of instrument development, Morgan (1988) asserted that:

As a form of qualitative research, focus groups are basically group interviews, although not in the sense of alternation between the researcher's questions and the research participant's responses.
Instead, the reliance is on interaction within the group, based on topics that are supplied by the researcher, who typically takes the role of a moderator. The fundamental data that focus groups produce are transcripts of the group discussions. (p. 9)

In the discussion of the principle of focus group interviewing, Krueger (1987) explained that "focus group interviews are organized group discussions focused around a single theme . . . a typical focus group study is really a series of group interviews" (p. 9). Group interviewing has distinct features which have given it an advantage over other kinds of interview such as the long interview. As a decision-making process, Krueger observed that it has the advantage of tapping "into the key aspects of individual decision-making and the dynamic of the group process. People usually do not make decisions in isolation, but rather after listening, discussing, and sharing concerns with others" (p. 9). The information produced by a focus group is rich in diversity and range of opinions as the interviewing process places no emphasis on consensus.

Borg and Gall (1983), observing the advantage of semistructured interviews which are used extensively in educational research, noted that they provide "a desirable combination of objectivity and depth, and often permit gathering valuable data that could not be successfully obtained by any other approach" (p. 442). The semistructured interview is reasonably objective and permits a rather thorough understanding of the respondent's opinions.

The focus group interview which was utilized in Phase One had the following distinctive features (Borg & Gall, 1983):

1. The persons interviewed are known to have been involved in a particular situation;

2. By means of the techniques of content analysis, elements in the situation which the researcher deems significant have previously been analyzed by him. He has, thus, arrived at a set of
hypothesis [research questions] relating to the meaning and effects of the specified elements;

3. Using his analysis as a basis, the investigator constructs an interview guide. This identifies the major areas of inquiry and the hypothesis [research questions] which determine the relevant data to be obtained in the interview; and

4. The actual interview is focused on the subjective experiences of the persons who have been exposed to the situation. Their responses enable the researcher: (a) to test the validity of his hypothesis [research questions]; and (b) to ascertain unanticipated responses to the situation, thus, giving rise to further hypothesis [research question]. (p. 310)

In their preliminary or exploratory data collection role, focus groups contain the value of linking qualitative and quantitative approaches of data collection which are useful for development of interview schedules and questionnaires, a triangulation of focus groups and surveys (Morgan, 1988).

Moonsie (1979) identified procedures for deciding on competencies to include in a competency-based teacher education program and these were: (a) theoretical approaches; (b) task analysis approaches; and (c) course conversion approaches. However, in vocational education the commonly used approach is task analysis with some variations, according to Norton (1978). Norton further noted that the task or role analysis approach entails the identification of competencies in the teaching of a given area by: (a) searching the literature; (b) having teachers describe what they teach or should be teaching, and what competencies they think they need; and (c) asking teacher educators, supervisors, and administrators for an explanation, description and verification of what teachers do or ought to be doing.

Morgan (1988) clearly indicated, as he expanded on the uses of focus groups, that "from a social science point of view, focus groups are useful either
as a self-contained means of collecting data or as a supplement to both quantitative and other qualitative methods" (p. 10). For this study, the modified focus group interview served the purpose of supplementing the quantitative method of administering a structured questionnaire, survey research. The usefulness of focus groups goes beyond the initial or exploratory stages of survey research. "They can augment the pretesting that is necessary to evaluate the survey instrument" (p. 34). Morgan, however, hastened to state that "the absence of explicit descriptions of how to triangulate focus groups and surveys is probably a result of the relative rarity of this combination" (p. 33). It is this constraint, as observed by Morgan in the literature that has led the researcher in this study to resort to a modified focus group interview, that is bringing in some modification to the focus group interview procedure. A detailed explanation of the phases to be followed in the instrument development process follows.

**Phase two.** In this phase, the researcher supplemented the universe of potential competencies with additional competencies identified from the literature and studies reviewed, thus, merging them into a composite listing of professional competencies. The merging procedure was the presentation of the additional competencies to the focus group. The focus group had both the universe of potential competencies they generated and the competencies drawn from the literature and studies reviewed by the researcher. Guided by a moderator guide, the researcher engaged the panel of experts in categorizing the competencies into several areas similar to the Cotrell et al. (1972a) study:

1. Program planning and development in vocational technical education,
2. School-community relations in vocational technical education,
3. School and business-industry relations in vocational technical education,
4. Curriculum development in vocational technical education,
5. Facilities and equipment in vocational technical education,
6. Planning and executing vocational technical education instruction,
7. Career guidance for vocational technical education,
8. Vocational technical student organization/club,
9. Vocational technical education program evaluation,
10. Professional development in vocational technical education,
and
11. Interpersonal relations in a vocational technical education environment.

The classification of the composite professional vocational technical education competencies concluded Phase Two of the focus group interview. Also at this stage of the focus group interview, Research Question One was answered: What are the professional vocational technical education competencies needed by Swaziland agricultural, commercial, home economics, and technical teachers?

Phase three of the instrument development with the focus group entailed the identification of demographic and personal background information desired from the survey respondents and determination of the content validity of the entire survey instrument. In the conduct of this phase, the moderator was guided by the factors for focus group interviews stated in Phase One (McLaughlin & Snyder, 1990).

Phase Three concluded with the researcher presenting to the focus group panel of experts the measurement scale which was subsequently utilized for the study. The measurement utilized to assess the teachers' perceived importance of and perceived ability to perform each competency were the following respective scales, with each scale ranging from 5 to 0 as follows:

Perceived importance scale:
5 = competency is of very high importance for effective teaching of vocational technical education.
4 = competency is of high importance for effective teaching of vocational technical education.
3 = competency is of medium importance for effective teaching of vocational technical education.
2 = competency is of low importance for effective teaching of vocational technical education.
1 = competency is of very low importance for effective teaching of vocational technical education.
0 = competency is of no importance for effective teaching of vocational technical education.

Perceived performance scale:

5 = of excellent ability to perform the competency
4 = of very good ability to perform the competency
3 = of good ability to perform the competency
2 = of fair ability to perform the competency
1 = of poor ability to perform the competency
0 = of no ability to perform the competency

This concluded the focus group interview section of instrument development (Appendix B). Instrument validation which occurred in Phase Three is further described in the following section.

Instrument Validation

The survey instrument, constructed in Phases One, Two, and Three, was validated for content by the professional panel of experts of the focus group, namely: senior inspectors, curriculum specialists, and teacher educators in specialty areas of agricultural, commercial, home economics, and technical studies. Focus groups “can augment the pretesting that is necessary to evaluate the survey instrument” (Morgan, 1988, p. 34). Walsh and Betz (1985) stated that validation of content provides for the judgement of whether or not the
content is indeed representative of the desired universe of content. In their opinion, evidence "in support of content validity is the judgement of those who construct the test or other experts familiar with the subject area or trait definition" (p. 57).

**Pilot Testing**

A pilot test of the questionnaire was conducted to refine the instrument for clarity and to determine ease of completion. It, thus, helped in the assessment of time and effort needed by the respondents. For the pilot test to be of utility, it was imperative that the test be conducted with persons similar to the prospective respondents in the actual sample.

Isaac and Michael (1971) gave the advantages of a pilot study:

- it often provides the research worker with ideas, approaches, and clues not foreseen prior to the pilot study. Such ideas and clues greatly increase the chances of obtaining clear-cut findings in the main study.

- it permits a thorough check of the planned statistical and analytical procedures, thus, allowing an appraisal of their adequacy in treating the data. Needed alterations also may be made in the data collecting methods, so that data in the main study may be analyzed more efficiency. (p. 5)

For purposes of this study, individuals incorporated in the pilot testing of the instrument were eight teachers of agricultural, commercial, home economics, and technical studies (Appendix C), two from each specialty area who were not included in the representative stratified random sample for the study.
**Instrument Reliability**

One of the useful properties that a measuring instrument used for purposes of research must possess is reliability (Travers, 1969). In this study, for purposes of determining the internal consistency and instrument reliability, the Cronbach's (1951) alpha coefficient was utilized and indeed was appropriate for nondichotomous items for ordinal/interval data (Walsh & Betz, 1985). The analysis of the instrument reliability was reported in chapter 4.

**Data Collection Procedures**

A sampling frame is the list of sampling units from which the sample is selected (Babbie, 1990). Sampling units for this study were the teachers of agricultural, commercial, home economics, and technical studies. There were four sampling frames, one from each of the four specialty/service areas to provide for stratified random sampling. "Stratified sampling is a method for obtaining a greater degree of representativeness, thus, decreasing the probable sampling error" (Babbie, 1990, p. 85). Stratification arranged the total population into homogeneous subpopulations with heterogeneity among the four subpopulations. Once the sampling frames were established, random table numbers were assigned (Jones, 1985) to each name of a teacher in each of the four sampling frames. One number was assigned to each teacher throughout the data collection period. Then a random table of numbers was utilized in the selection of the subjects for the samples (Jones, 1985). The sample design employed in this study had provision for the results to be
representative of each of the four subpopulations by specialty/service area, and of the total population of the vocational technical education profession.

Sampling frames were procured from the Ministry of Education's senior inspectors of agricultural, commercial, home economics, and technical studies. The sampling frames had names and school addresses of each teacher in all four specialty areas. To ensure, and as a second check, that all the teachers in each of the four specialty areas were included in each of the four specialty areas, the latest records of the listing of teachers by the Swaziland Teaching Service were utilized, and rectifications of the original sampling frames were done as the need arose. The procedures for determining the sample size was explained in this chapter under the section, Description of Population and Sample. The teachers were mailed a questionnaire with a cover letter requesting their cooperation in the study, stating the purpose of the study, and assuring them that their responses would be kept confidential. Along with the questionnaire (Appendix B) and cover letter (Appendix D), a Certificate of Participation and a pencil were enclosed as an expression of appreciation for participating in the research project. Six weeks after the initial mailing, which yielded a return rate of 82%, a follow-up letter (Appendix E) was mailed to nonrespondents as a reminder. In the meantime, the returned questionnaires were examined, and the incomplete questionnaires were returned to the respondents, in person, for completion. The remaining 18% of the questionnaires were returned without a second reminder, and they too were examined and any incomplete questionnaires returned, in person, to the respondents. Upon receipt of all questionnaires, a final examination was
performed and incomplete questionnaires were returned, in person, to the respondents for completion.

Data Analysis and Interpretation

Descriptive statistics were used to analyze and summarize the data relevant to the research questions. Such statistical techniques are used to derive, from raw data, certain indices to characterize the entire set of data (Huck, Cormier, & Bounds, 1974).

For purposes of this study, the following were utilized as independent variables:

Teaching specialty area, that is, agricultural, commercial, home economics, and technical studies; level of education, that is, high school leaver/graduate, certificate, diploma, bachelor's degree, master's degree, other; and teaching experience, that is, duration/number of years in the teaching profession.

The following were utilized as dependent variables in this study:

Perceived value of the professional vocational technical teacher education competency in fulfilling expected job responsibilities. This variable was referred to as "Importance."

Perceived ability to apply the professional vocational technical education teacher competency when fulfilling expected job responsibilities. This variable was referred to as "Performance."

The teacher specialty area can be a revealing independent factor or variable which impacts the scores of the dependent variable. Vieira (1981), in the study of the relative importance of competencies as perceived by vocational teachers of agriculture, and trade and industry, found that 386 of the 397 competencies were rated moderate or above by agricultural teachers, whereas trade and industry teachers had 374 competencies rated moderate or above.
The conclusion was that vocational agriculture teachers, and trade and industry teachers differed in their mean importance ratings. However, it was also noted that the differences between these two groups of teachers were of little practical importance.

Teacher characteristics such as level of education and teaching experience, as independent variables, can impact the dependent or criterion variable to the extent of producing varying results. Consideration of such factors in behavioral science studies is, thus, given appropriate attention, and vocational technical education has been no exception in this regard.

Moonsie (1979), studying the vocational technical education competencies needed by industrial secondary and high school teachers in Trinidad and Tobago, took into consideration the likely effect of the independent variables of teacher training institution and country of training, level of education, and teaching experience of teachers. With regard to institution of training and country of training, Moonsie's study investigated the mean response differences among industrial teachers trained locally, that is, in Trinidad and Tobago, teachers trained in some foreign country like the United States, and finally, those teachers trained both in Trinidad and Tobago and outside the country. When the test of significance of difference was calculated, it revealed that there was no significant difference between teacher groups when the country of training was considered.

Teacher level of education, as an independent variable in the Moonsie (1979), study had the categories or levels of education as holder of certificate, diploma, B.Sc., M.Sc. and the category "other." The results revealed a difference between junior and senior industrial teachers in respect of
perceptions expressed for the needed vocational technical education competencies by the industrial teachers.

In the Moonsie study, when the independent variable of teaching experience was considered, there was a significant difference between junior high school and senior comprehensive school teachers as regard professional vocational technical education competencies needed by industrial teachers.

The nine research questions that this study answered are given below:

1. What are the professional vocational technical education competencies needed by Swaziland agricultural, commercial, home economics, and technical teachers?

2. What is the perceived importance of each of the professional vocational technical competencies as reported by agricultural, commercial, home economics, and technical teachers?

3. Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

4. What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

5. Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

6. Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

7. Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

8. Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?
9. Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

A description of the treatment and analysis of data to answer these research questions is given in the next paragraphs. For purposes of data interpretation, statistical significance versus practical importance was given consideration bearing in mind that "the question about whether magnitude of the difference dictates a corrective course of action is not totally answered by the statistical tests of significance" (Hinkle, Wiersma, & Jurs, 1979, p. 235). Furthermore, Oliver (1981) succinctly explicated that "statistical significance does not automatically indicate that the results are of practical importance" (p. 14). Because statistical significance heavily depends upon sample size, it may or may not indicate practical significance, hence, the need for additional information to help determine practical importance (Oliver, 1981). Hinkle et al. (1979), provided a more succinct statement on sample size:

The observant reader may have noted that a sufficiently large sample size will lead to the rejection of any null hypothesis based upon a fixed difference between the hypothesized parameter and the observed sample statistic. On the other hand, a researcher may not reject a null hypothesis even though there is a seemingly large difference between the parameter and the corresponding statistic. It is possible that the sample size is then too small. (p. 192)

However, guiding the decision on determining the data analysis procedures for this study were the following questions (Hinkle, Wiersma, & Jurs, 1979, p. 193-194): "What does statistical significance mean in the context of the research situation and the variables understudy? Further, when does a difference become large enough to warrant a corrective course of action?"

Following consideration of these questions, it was determined that for this study, inferential statistics could not fully answer the research questions posed.
Research questions of this study "can be answered only on the basis of a thorough knowledge and understanding of the research area. Inferential statistics are tools used to analyze data, they are not substitutes for knowledgeable interpretation of results" (Hinkle, Wiersma, & Jurs, 1979, p. 194).

To answer Research Question One, two, one-day focus group workshops were conducted on the agricultural campus of the University of Swaziland. The workshop participants consisted of 12 professionals, namely, four teacher educators, four curriculum development specialists, and four school senior inspectors (supervisors). All four specialty/service areas were represented, that is, three participants from agricultural, commercial, home economics, and technical studies. A universe of 161 professional vocational technical education competencies was developed and categorized into 11 competency areas.

Interpretive measurement scales of "importance" and "performance" were utilized in the data analysis and interpretation. These measurement scales were used in answering Research Questions Two through Nine. Mean importance and mean performance differences among teacher groups as functions of specialty/service area, levels of education, and years of teaching experience, were determined based on the interpretive scales corresponding to the scales utilized in the survey questionnaire, with midpoints used for interpretation (Kirby & Browning, 1990). The rationale for the selection of the statistical procedures for data analysis and interpretation in light of the research questions and the overall design of the study follow in the next several paragraphs.
The design of the study resulted in an instrument with a dual response format of Likert-type scales. Respondents were asked to provide information recognized as subjective attitudes and perceptions. "Survey research does not permit the direct measurement of behavior, although social behavior is frequently the ultimate referent of social research. Survey research does permit the indirect measurement of behavior, however, and often in useful ways" (Babbie, 1990, p. 124). Since the survey instrument asked respondents to provide information as an indirect measure of their behavior on the perceived importance and perceived performance of the competencies, the selected data analysis procedures for the measurement of their behavior corresponded to and reflected the measurement scales utilized in the survey instrument. Thus, the data analysis measurement scale constructed and employed has its roots in the conceptual framework of Likert scaling. This Likert-type data analysis measurement scale is an approximation and reflection of the Likert-type scale of the data collection (questionnaire) measurement scale on which respondents marked their perceptions. Both scales contain equal intervals of one point of a scale between scale points. The uniform scoring of the Likert-type response categories has about the same intensity which is key to the Likert and/or Likert-type scaling.

Babbie (1990) expatiating on the advantages of Likert scaling asserted that "the particular value of this format is the unambiguous ordinality of the response categories" (p. 164). Babbie (1990) further explained that "because identical response categories will have been used for several items intended to measure a given variable, each such item can be scored in a uniform manner" (p. 164). Hence, in the determination of mean differences as functions of
specialty groups (areas), levels of education, and years of teaching experience, identical response categories were utilized to measure and classify a given dependent variable of response, namely, a competency statement. Competencies were scored, analyzed employing descriptive statistics; and for purposes of interpretation they were classified into mean response categories in a uniform manner. "The uniform scoring of Likert-item response categories assumes that each item has about the same intensity as the rest" (Babbie, 1991, p. 164).

Furthermore, the use of Likert-type mean response categories for data analysis and interpretation concurred and indeed reaffirmed the utility of practical importance rather than statistical significance in the reality and utility of the findings for consumers and practitioners who subscribe to a utilitarian philosophy of vocational education. The concept of statistical significance versus practical importance as a return to reality (Hinkle, Wierma, & Jurs, 1979) was discussed early in this Chapter.

The following is a description of the two Likert-type measurement scales used in this study, the data collection (questionnaire) Likert-type measurement scales, and the data analysis/interpretive Likert-type measurement scales. Both scales have equal intervals of one point between scale points:

Data Collection measurement scales:

<table>
<thead>
<tr>
<th>Importance scale</th>
<th>Performance scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>5=of very high importance</td>
<td>5=of excellent ability to perform</td>
</tr>
<tr>
<td>4=of high importance</td>
<td>4=of very good ability to perform</td>
</tr>
<tr>
<td>3=of medium importance</td>
<td>3=of good ability to perform</td>
</tr>
<tr>
<td>2=of low importance</td>
<td>2=of fair ability to perform</td>
</tr>
<tr>
<td>1=of very low importance</td>
<td>1=of poor ability to perform</td>
</tr>
<tr>
<td>0=of no importance</td>
<td>0=of no ability to perform</td>
</tr>
</tbody>
</table>
Data analysis/interpretive measurement scale:

<table>
<thead>
<tr>
<th>Importance scale</th>
<th>Performance scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.50-5.00 of very high importance</td>
<td>4.50-5.00 of excellent ability to perform</td>
</tr>
<tr>
<td>3.50-4.49 of high importance</td>
<td>3.50-4.49 of very good ability to perform</td>
</tr>
<tr>
<td>2.50-3.49 of medium importance</td>
<td>2.50-3.49 of good ability to perform</td>
</tr>
<tr>
<td>1.50-2.49 of low importance</td>
<td>1.50-2.49 of fair ability to perform</td>
</tr>
<tr>
<td>0.50-1.49 of very low importance</td>
<td>0.50-1.49 of poor ability to perform</td>
</tr>
<tr>
<td>0.00-0.49 of no importance</td>
<td>0.00-0.49 of no ability to perform</td>
</tr>
</tbody>
</table>

The following paragraphs describe how Research Questions Two to Nine were answered employing the data analysis Likert-type measurement scales of importance and performance using mean response categories described in the preceding paragraphs to determine existence of mean differences.

Competency statements with mean importance responses of 4.50 to 5.00 were considered to be of "very high importance," 3.50 to 4.49 were considered to be of "high importance," 2.50 to 3.49 were considered to be of "medium importance," 1.50 to 2.49 were considered to be of "low importance," 0.50 to 1.49 were considered to be of "very low importance," and means of 0.00 to 0.49 were considered of "no importance." Mean performance differences among teacher groups were determined based on the scale corresponding to performance scale which was utilized in the survey questionnaire, with midpoints used for interpretation (Kirby & Browning, 1990). Competency statements with mean performance responses of 4.50 to 5.0 were considered to be of "excellent ability to perform," 3.50 to 4.49 were considered to be of "very good ability to perform," 2.50 to 3.49 were considered to be of "good ability to perform," 1.50 to 2.49 were considered to be of "fair ability to perform," 0.50 to 1.49 were considered to be of "poor ability to perform," and means of 0.00 to 0.49 were considered to of "no ability to perform."
In answering Research Questions Two to Nine, the data analysis measurement scales of importance and performance were employed. These measurement scales represent practical importance rather than statistical significance in terms of mean differences.

To answer Research Question Two and Research Question Four, the highest rated mean competencies and the lowest rated mean competencies were determined based on the importance and performance values as rated by each specialty group, namely, agricultural, commercial, home economics, and technical studies. The highest and lowest mean values were denoted by parentheses in Table 6 of Chapter 4.

In answering Research Questions Three, Five, Six, Seven, Eight, and Nine on determining the existence of mean importance differences and mean performance (ability to perform) differences as functions of specialty groups (service areas), levels of education, and years of teaching experience, the following analysis and interpretation were employed: If the mean values for a competency were in the same mean response category for all teacher groups, then the teacher groups were considered to share similar perceived view points in respect to that competency, thus, no existence of a perceived mean difference was denoted by an underline of the mean value(s) that differed. However, if the mean value(s) for a competency was in a different mean response category(ies), the teacher group(s) was considered to hold a different perception(s) or view point(s) in respect to that competency, thus, an existence of a perceived mean difference was denoted. In determining the perceived mean importance difference and perceived performance difference, the measurement scales described earlier were utilized. Mean value(s) that
differed from any other teacher group(s) were denoted by underlined in Tables 6, 7 and 8 of Chapter 4.

Discrepancy index values (Borich, 1980) between mean importance and mean performance values were computed for all 161 of the competencies and these data have been placed in Appendix F. Findings from the data in Appendix F have not been included as a part of Chapter 4 since they were not needed to answer the study's research questions. However, the discrepancy index values of the data provide further information for understanding the findings of this study, and the data provide a basis for the discussion included in the discussion and implications section of this study.

**Chapter Summary**

In this chapter, the purposes of the study, the population and sample, the development of the instrument, data collection procedures, and data analysis and interpretation were described. For the collected data, the statistical techniques utilized in the analysis of the data were thoroughly explicated.
Chapter 4

FINDINGS

The preceding chapter explained the population and sampling procedures, instrument development, data collection procedures, and data analysis. The purpose of this chapter is to report the findings relative to the research questions posed by this study.

The primary purposes of the investigation were to identify the professional vocational technical education competencies needed by Swaziland agricultural, commercial, home economics, and technical teachers, and to assess the teachers' perceived importance of and the perceived ability to perform these competencies. Specifically, the following research questions were included in the study:

1. What are the professional vocational technical education competencies needed by Swaziland agricultural, commercial, home economics, and technical teachers?

2. What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

3. Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

4. What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

5. Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?
6. Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

7. Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

8. Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

9. Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

This chapter presents the following components of the study: (a) descriptive analysis of the sample, (b) instrument reliability, (c) findings relative to the research questions, and (d) chapter summary. The findings are supported by competency area.

**Descriptive Analysis of the Sample**

Table 1 (in chapter 3) presented a summary of the population, sub-populations, and sample size of the participants involved in this study. To obtain relevant information, a stratified random sample of 191 agricultural, commercial, home economics, and technical teachers was selected to receive a questionnaire. The rate of return was 100%, thus all 191 questionnaires were used in the analysis of data. The frequency distribution of respondents by sex, with 55.5% indicating they are male, was presented in Table 2. A frequency distribution of respondents by levels of education was reported in Table 3. Due to the small number of responses in the high school and master's degree
Table 2

Frequency Distribution of Respondents by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Response Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>85</td>
<td>44.5</td>
</tr>
<tr>
<td>Male</td>
<td>106</td>
<td>55.5</td>
</tr>
<tr>
<td>Total</td>
<td>191</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 3

Frequency Distribution of Respondents by Level of Education

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Response Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate and Below</td>
<td>21</td>
<td>11.0</td>
</tr>
<tr>
<td>Diploma</td>
<td>130</td>
<td>68.1</td>
</tr>
<tr>
<td>Bachelor's Degree and Above</td>
<td>40</td>
<td>20.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>191</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
education levels, the independent variable of education level was collapsed from five levels to three levels, namely, certificate and below, diploma, and bachelor's degree and above. Those respondents with diplomas (68.1%) represented the largest response. Table 4 presented the frequency distribution of respondents by years of teaching experience, with 52.4% of the teachers indicating 1-5 years of teaching experience.

**Instrument Reliability**

The questionnaire developed subsequent to the two one-day workshops had a dual-response format. Respondents were asked to reply twice to each competency statement. The questionnaire had a scale of importance and a scale of performance for each competency. The values on the scales ranged from 5 to 0 for the importance scale (5 = of very high importance; 4 = of high importance; 3 = of medium importance; 2 = of low importance; 1 = of very low importance; 0 = of no importance), and the values of the performance scale also ranged from 5 to 0 (5 = of excellent ability to perform; 4 = of very good ability to perform; 3 = of good ability to perform; 2 = of fair ability to perform; 1 = of poor ability to perform; 0 = of no ability to perform). The questionnaire was pilot-tested using agricultural, commercial, home economics, and technical teachers who were representative of those in the study samples of each specialty group.

The final questionnaire had 16† professional vocational technical education competencies to be rated in 11 competency areas. Reliability indices were determined for each of the 11 competency areas on both the importance scale and the performance scale. Cronbach's Coefficient Alpha was used to
Table 4

Frequency Distribution of Respondents by Years of Teaching Experience

<table>
<thead>
<tr>
<th>Years of Teaching Experience</th>
<th>Response Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 5</td>
<td>100</td>
<td>52.4</td>
</tr>
<tr>
<td>6 to 10</td>
<td>53</td>
<td>27.7</td>
</tr>
<tr>
<td>11 and above</td>
<td>38</td>
<td>19.9</td>
</tr>
<tr>
<td>Total</td>
<td>191</td>
<td>100.0</td>
</tr>
</tbody>
</table>
measure the homogeneity of items within each competency area (Cronbach, 1951). The coefficient indices on each of the 11 competency areas for both the importance and performance scales were reported in Table 5.

The reliability coefficient values among professional vocational technical education competencies for assessing the importance of competencies in the competency areas for effective vocational teacher roles ranged from 0.75 for School-Community Relations to 0.93 for Vocational Student Organization/Club and Interpersonal Relations. The data in Table 5 indicated that a very strong internal consistency existed among the professional vocational technical education competencies, thus supporting the effectiveness of these competency areas in measuring each of the competencies presented in Tables 6, 7 and 8.

The reliability coefficient indices among professional vocational technical education competencies for determining the performance of the teachers on these competencies in the competency areas required of effective vocational technical teacher roles ranged from 0.83 for School-Community Relations to 0.96 for Interpersonal Relations. These data indicated a very strong internal consistency existing among the professional vocational technical education competencies, demonstrating their ability to evaluate the performance of the teachers for the 11 competency areas presented in Tables 6, 7 and 8.

It was also noted that lower coefficient values on both the importance and performance scales represented the same competency area,
**Table 5**

Assessment Criteria for Professional Vocational Technical Education Competencies as Competency Areas

<table>
<thead>
<tr>
<th>Competency Areas</th>
<th>Reliability Coefficients (Importance)</th>
<th>Reliability Coefficients (Performance)</th>
<th>Number of Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Planning and Development</td>
<td>.82</td>
<td>.87</td>
<td>15</td>
</tr>
<tr>
<td>School-Community Relations</td>
<td>.75</td>
<td>.83</td>
<td>6</td>
</tr>
<tr>
<td>School and Business-Industry Relations</td>
<td>.89</td>
<td>.93</td>
<td>15</td>
</tr>
<tr>
<td>Curriculum Development</td>
<td>.82</td>
<td>.89</td>
<td>9</td>
</tr>
<tr>
<td>Facilities and Equipment</td>
<td>.89</td>
<td>.93</td>
<td>17</td>
</tr>
<tr>
<td>Planning and Executing Instruction</td>
<td>.90</td>
<td>.92</td>
<td>17</td>
</tr>
<tr>
<td>Career Guidance</td>
<td>.89</td>
<td>.94</td>
<td>20</td>
</tr>
<tr>
<td>Vocational Student Organization/Club</td>
<td>.93</td>
<td>.93</td>
<td>10</td>
</tr>
<tr>
<td>Program Evaluation</td>
<td>.89</td>
<td>.92</td>
<td>12</td>
</tr>
<tr>
<td>Professional Development</td>
<td>.85</td>
<td>.90</td>
<td>9</td>
</tr>
<tr>
<td>Interpersonal Relations</td>
<td>.93</td>
<td>.96</td>
<td>31</td>
</tr>
</tbody>
</table>
School-Community Relations. Similarly, higher coefficient values on both the importance and performance scales were represented by the same competency area, Interpersonal Relations. Furthermore, it was observed that reliability coefficient values on the performance scale were slightly higher than those on the importance scale, indicating an even stronger internal consistency.

To help organize the data and provide an overview on how the groups responded to the importance and their performance of each competency, means of importance and performance were computed on each of the 161 vocational technical education competencies as perceived by the teachers of agricultural, commercial, home economics, and technical studies as a composite group. Mean importance differences among all four specialty groups were determined based on the interpretive scale corresponding to the importance scale which was utilized in the survey questionnaire with midpoints used for interpretation (Kirby & Browning, 1990). Competency statements with mean importance responses of 4.50 to 5.00 were considered to be of "very high importance," 3.50 to 4.49 were considered to be of "high importance," 2.50 to 3.49 were considered to be of "medium importance," 1.50 to 2.49 were considered to be of "low importance," 0.50 to 1.49 were considered to be "very low importance," and means of 0.49 or below were considered to be of "no importance." Mean performance differences among all four specialty groups were determined based on the interpretive scale corresponding to the performance scale which was utilized in the survey questionnaire with midpoints used for interpretation (Kirby & Browning, 1990). Competency statements with mean performance responses of 4.50 to 5.0 were considered to be of "excellent ability to perform," 3.50 to 4.49 were considered as a "very good
ability to perform," 2.50 to 3.49 were considered as "good ability to perform;" 1.50 to 2.49 were considered to be of "fair ability to perform;" 0.50 to 1.49 were considered to be of "poor ability to perform;" and means of 0.49 or below were considered to be of "no ability to perform."

Eleven competency areas were surveyed: Program Planning and Development, School-Community Relations, School and Business-Industry Relations, Curriculum Development, Facilities and Equipment, Planning and Executing Instruction, Career Guidance, Student Organization/Club, Program Evaluation, Professional Development, and Interpersonal Relations. Results of the data analyses for each of the research questions were presented in Tables 6, 7, or 8.

Answers to Research Questions 1, 2, 3, 4, and 5 were reported in Table 6. In answering Research Questions 2 and 4, the focus of the analysis was on highest and lowest rated competencies based on the mean importance and performance ratings by each specialty group; agricultural, commercial, home economics, and technical studies. To answer Research Questions 3 and 5, the focus of the analysis was on the differences in the mean rating perceptions on the importance and performance of each of the four specialty groups. The mean rating values that differed from each group, were underlined (Table 6). Similarly, in answering Research Questions 6 and 7, mean ratings that differed as a function of the levels of education were underlined in Table 7 and mean ratings differing as a function of years of teaching experience in answering Research Questions 8 and 9 were also highlighted by an underline in Table 8.

In Appendix F, data were presented that reported the discrepancy index (Borich, 1980) between mean importance and mean performance values. The
weighted mean values provide further data for developing the study's conclusion, recommendations, and especially the implications. The discrepancy index values were used to rank the competencies which can be beneficial in determining priorities for in-service educational programs for vocational technical teachers in Swaziland.

Findings Relative to the Research Questions Reported by Competency Area

Research Question 1

What are the professional vocational technical education competencies needed by Swaziland agricultural, commercial, home economics, and technical teachers?

Research Question 1 was answered in the context of the two, one-day workshops conducted with Swaziland professionals: teacher educators, senior inspectors, and curriculum development specialists, in the specialty groups of agricultural, commercial, home economics, and technical studies. A total of 161 professional vocational technical education competencies were developed at the workshops, and these competencies were reported in Table 6 by the 11 competency areas.

Competency Area: Program Planning and Development

Research Question 2

What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?
Of the 15 competencies in the Program Planning and Development Area, commercial teachers rated all 15 either as "very high" or "high importance." Agricultural teachers rated 13 of the 15 as "high importance," while home economics and technical teachers rated 10 and 11 of the 15 as "high importance," respectively. These data were reported in Table 6.

Rated highest in importance by commercial and technical teachers were competencies, No. 11 "Articulating/coordinating secondary/high school vocational technical education program with the postsecondary vocational education centers/institutions, Swaziland College of Technology, and University of Swaziland" (4.63), and No. 4 "Cooperating with a vocational technical advisory committee in selecting and developing a vocational program that reflects present and future trends of Swaziland's economy" (4.40), respectively. On the other hand, agricultural and home economics teachers both rated highest in importance the competency, No. 14 "Implementing a vocational technical education program in a rural environment" (4.35 and 4.45), respectively.

Rated lowest in importance by agricultural and home economics teachers was the competency, No. 7 "Communicating Swaziland Labor Laws to vocational technical education students," with mean values of 3.23 and 3.10, respectively. Commercial and technical teachers rated, No. 6 "Interpreting the Swaziland Industrial and Training Acts" as the lowest with mean values of 3.52 and 2.97, respectively.
### Table 6

**Mean Importance and Performance Differences by Specialty Group of the Professional Vocational Technical Education Competencies**

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Competency</th>
<th>Importance by Specialty Group</th>
<th>Performance by Specialty Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Program Planning and Development</td>
<td>1. Developing materials for conducting a community survey on needs for a vocational technical education program.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Outlining activities and procedures for conducting a community survey on needs for a vocational technical education program.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Conducting a community survey to identify local employer demands for vocational technical education programs consistent with needs of students, community, and society.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Cooperating with a vocational technical education advisory committee in selecting and developing a vocational program that reflects present and future trends of Swaziland's economy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Explaining the Swaziland Government vocational technical education philosophy/principles/policies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Communicating Swaziland Labor Laws to vocational technical education students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Interpreting national manpower and labor statistics to develop/revise vocational technical education curricula.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. Determining the Swaziland teachers' beliefs about vocational education on planning, implementing, and evaluating vocational technical education.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Competency</th>
<th>Importance by Specialty Group</th>
<th>Performance by Specialty Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>AG&lt;sup&gt;a&lt;/sup&gt;&lt;sub&gt;n = 57&lt;/sub&gt;</td>
<td>CO&lt;sup&gt;a&lt;/sup&gt;&lt;sub&gt;n = 54&lt;/sub&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HE&lt;sup&gt;a&lt;/sup&gt;&lt;sub&gt;n = 40&lt;/sub&gt;</td>
<td>TE&lt;sup&gt;a&lt;/sup&gt;&lt;sub&gt;n = 40&lt;/sub&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AG&lt;sup&gt;a&lt;/sup&gt;&lt;sub&gt;n = 57&lt;/sub&gt;</td>
<td>CO&lt;sup&gt;a&lt;/sup&gt;&lt;sub&gt;n = 54&lt;/sub&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HE&lt;sup&gt;a&lt;/sup&gt;&lt;sub&gt;n = 40&lt;/sub&gt;</td>
<td>TE&lt;sup&gt;a&lt;/sup&gt;&lt;sub&gt;n = 40&lt;/sub&gt;</td>
</tr>
<tr>
<td>A. Program Planning and Development</td>
<td>1. Developing materials for conducting a community survey on needs for a vocational technical education program.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Outlining activities and procedures for conducting a community survey on needs for a vocational technical education program.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Conducting a community survey to identify local employer demands for vocational technical education programs consistent with needs of students, community, and society.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Cooperating with a vocational technical education advisory committee in selecting and developing a vocational program that reflects present and future trends of Swaziland's economy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Explaining the Swaziland Government vocational technical education philosophy/principles/policies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Communicating Swaziland Labor Laws to vocational technical education students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Interpreting national manpower and labor statistics to develop/revise vocational technical education curricula.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. Determining the Swaziland teachers' beliefs about vocational education on planning, implementing, and evaluating vocational technical education.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Competency</th>
<th>Importance by Specialty Group</th>
<th>Performance by Specialty Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>AG^a  n = 57 x^b</td>
<td>CO^a  n = 54</td>
</tr>
<tr>
<td>10.</td>
<td>Evaluating the influence of Swaziland teachers' beliefs about vocational technical education on planning, implementing, and evaluating vocational technical education program.</td>
<td>3.84 3.80 3.38 3.58</td>
<td>2.84 2.74 2.65 2.68</td>
</tr>
<tr>
<td>11.</td>
<td>Articulating/Coordinating the secondary/high school vocational technical education program with the post secondary vocational education centers/institutions, Swaziland College of Technology, and University of Swaziland.</td>
<td>4.18 (4.63) 4.38 3.98</td>
<td>3.25 (3.26) 3.43 3.18</td>
</tr>
<tr>
<td>12.</td>
<td>Identifying persons to be served by a vocational technical education program.</td>
<td>4.00 3.85 3.97 3.38</td>
<td>3.18 2.72 3.35 2.83</td>
</tr>
<tr>
<td>13.</td>
<td>Interpreting occupational information and community survey data.</td>
<td>3.63 3.63 3.43 3.05</td>
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<td>15.</td>
<td>Implementing a vocational technical program in an urban school environment.</td>
<td>3.84 3.70 3.75 3.65</td>
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<td>B. School-Community Relations</td>
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<td>16.</td>
<td>Implementing public relations activities for promoting the field of vocational technical education.</td>
<td>(3.03) 4.00 4.10 3.80</td>
<td>2.86 (2.52) 3.30 2.85</td>
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<td>17.</td>
<td>Implementing human relations activities for developing parents self-confidence in vocational technical students.</td>
<td>3.96 3.89 3.95 3.78</td>
<td>(2.72) 2.79 3.03 2.85</td>
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<td>18.</td>
<td>Establishing relationships with parents of vocational technical students and understanding students' home conditions.</td>
<td>(4.28) 3.74 (4.25) 3.38</td>
<td>3.16 2.83 (3.55) 2.82</td>
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<td>19.</td>
<td>Conducting conferences with parents of vocational technical students at home and school to promote vocational technical education.</td>
<td>4.02 (3.64) (3.70) (3.23)</td>
<td>3.12 2.68 (3.00) 2.70</td>
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<td>20. Assessing conditions in the community where vocational technical students live.</td>
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<td>21. Conducting conferences with parents of vocational technical students who are having difficulty with their children's choices of occupations/careers.</td>
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<td>C. School and Business-Industry Relations</td>
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<td>22. Collaborating with business and industry in planning and conducting vocational technical education program.</td>
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<td>23. Conducting a survey of business and industry to determine prospective employer/occupational needs in your teaching/specialty area.</td>
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<td>24. Working with business and industry in selecting vocational technical education content in your specialty area.</td>
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<td>25. Determining the present and future socioeconomic conditions in the community.</td>
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<td>26. Planning internships (cooperative education) with business and industry for vocational technical students.</td>
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<td></td>
<td>27. Developing criteria and procedures for selecting and assigning vocational technical students for internships (cooperative education).</td>
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<td>28. Matching attitudes and interests of vocational technical students to job/internship experience (cooperative education) placement.</td>
<td>3.91</td>
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<td>29. Developing a contract agreement with business and industry for vocational technical student internship (cooperative education) experiences.</td>
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<td>30.</td>
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<td>Supervising vocational technical student internship experiences (cooperative education) in relationship to expected on-the-job experiences and provide on-site instruction as needed.</td>
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<td>32.</td>
<td>Supervising vocational technical student internship (cooperative education) as a joint responsibility of both the vocational technical teacher and business/industry representatives.</td>
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<td>33.</td>
<td>Updating Internship experience (cooperative education) records of vocational technical students.</td>
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<td>34.</td>
<td>Evaluating vocational technical students' Internship (cooperative education) experiences with business and industry.</td>
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<td>35.</td>
<td>Instructing students in the principles and practices of internship experiences (cooperative education) in vocational technical education.</td>
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<td>Preparing on-site supervisors who will be working with students in vocational technical education internships.</td>
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<td>D. Curriculum</td>
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<td>37. Assisting in the development of a comprehensive vocational technical education curriculum.</td>
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<td>38. Revising an existing vocational technical education curriculum.</td>
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### Competency Area

#### Competency

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<td>39. Integrating vocational technical education content with the content of general education applicable to the occupational choice of vocational technical students.</td>
<td>4.00</td>
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<td>40. Developing a vocational technical curriculum in own subject matter/content area.</td>
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<td>3.98</td>
<td>3.96</td>
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<td>3.00</td>
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<td>41. Incorporating instructional content from related fields that has implications for vocational technical education.</td>
<td>3.91 (3.78)</td>
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<td>2.74 (2.54)</td>
<td>2.98 (2.88)</td>
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<td>42. Working with teacher education/training institutions and subject panels to identify competencies for a vocational curriculum in your teaching/specialty area.</td>
<td>(4.35)</td>
<td>(4.57)</td>
<td>(4.35)</td>
<td>(4.15)</td>
<td>(3.28)</td>
<td>(3.51)</td>
<td>(3.68)</td>
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<td>43. Conducting an occupational/job analysis.</td>
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<td>(3.63)</td>
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<td>44. Selecting vocational technical education content that relates to the specific competencies in an occupational area.</td>
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<td>45. Reviewing vocational technical curriculum materials to determine quality and relevance of the curriculum content.</td>
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<td>4.17</td>
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<td>4.00</td>
<td>3.19</td>
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**E: Facilities and Equipment**

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<tr>
<td>46. Compiling a list of vocational technical education consumable supplies needed for the school year.</td>
<td>4.37</td>
<td>4.17</td>
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<td>47. Identifying new vocational technical education tools and equipment needed for the school year.</td>
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<td>3.37</td>
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<td>48. Preparing a capital outlay budget proposal for vocational technical education program.</td>
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<td>4.28</td>
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<td>49. Preparing an operational budget proposal for vocational technical program.</td>
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<td>3.96</td>
<td>4.23</td>
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<td>50.</td>
<td>Preparing purchase requests of vocational technical equipment and supplies for approval.</td>
<td>3.95 3.85 3.95 3.87</td>
<td>3.02 3.00 3.20 3.36</td>
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<td>51.</td>
<td>Designing a system for determining and collecting student fees for consumable vocational technical education supplies.</td>
<td>(3.67) 3.80 (3.70) 4.07</td>
<td>(2.95) 2.81 (3.15) 3.45</td>
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<td>52.</td>
<td>Providing data for vocational technical education reports required by the Ministry of Education, inspectorate division.</td>
<td>4.05 4.00 4.05 3.95</td>
<td>3.28 (2.60) 3.23 3.23</td>
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<td>53.</td>
<td>Providing safety measures for vocational technical education students using hazardous equipment/materials.</td>
<td>(4.63) (4.44) 4.31 (4.45)</td>
<td>3.56 2.77 3.80 3.80</td>
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<td>54.</td>
<td>Formulating with students acceptable standards of behavior in vocational technical education classrooms and laboratories/workshops.</td>
<td>4.05 3.93 4.08 4.07</td>
<td>3.45 2.70 3.38 3.59</td>
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<td>55.</td>
<td>Maintaining an inventory of vocational technical education tools, supplies, and equipment.</td>
<td>4.40 4.15 4.30 4.43</td>
<td>(3.88) 2.83 3.65 (3.90)</td>
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<td>56.</td>
<td>Designing a system for repairing and servicing vocational technical education tools and equipment.</td>
<td>4.23 4.22 4.45 4.35</td>
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<td>57.</td>
<td>Providing for the storage and security of vocational technical education tools and equipment.</td>
<td>4.42 4.36 4.48 (4.45)</td>
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<td>58.</td>
<td>Designing student check-out procedures for vocational technical education laboratory/workshop equipment, tools, and supplies.</td>
<td>4.25 4.09 4.13 4.08</td>
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<td>59.</td>
<td>Directing students in a system for cleaning and maintaining the vocational technical education laboratory/workshop.</td>
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<td>60. Arranging layout of the vocational technical education laboratory/workshop to simulate the occupational workplace environment.</td>
<td>4.14 (3.88)</td>
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<td>61. Formulating a policy for use of the vocational technical education facilities and equipment by other school personnel and groups outside the school.</td>
<td>4.01 (3.46)</td>
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<td>3.80 (3.46)</td>
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<td>62. Providing for the first aid needs of vocational technical education students.</td>
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<td>F. Planning and Executing Instruction</td>
<td>63. Stating vocational technical instructional objectives in student performance terms.</td>
<td>4.35 (4.00)</td>
<td>4.00 (4.00)</td>
<td>4.25 (4.00)</td>
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<td>64. Classifying vocational technical instructional objectives into cognitive, psychomotor, and affective domains.</td>
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<td>65. Using audio and visual equipment appropriate for a vocational technical lesson.</td>
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<td>66. Applying vocational technical education instructional techniques, materials, and learning tools appropriate for the lesson objective.</td>
<td>4.46 (4.33)</td>
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<td>67. Identifying sites for field trips that provide learning environments.</td>
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<td>68. Developing opportunities for vocational technical students to observe and analyze a variety of occupational work facilities.</td>
<td>4.07 (4.20)</td>
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<td>69. Demonstrating competency in using a variety of teaching methods in vocational technical education such as problem-solving, simulations, discovery, role play, discussion, projects.</td>
<td>4.30 (4.07)</td>
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<tr>
<td>G. Career Guidance</td>
<td>80. Disseminating occupational/career information to vocational technical students.</td>
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<td>81. Interpreting occupational/career information to vocational technical students.</td>
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<td>82. Assessing vocational technical students' aptitude/ability for occupations available in Swaziland.</td>
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<td>83. Providing vocational technical education information to all students.</td>
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<td>84. Providing services needed to assist vocational technical students in making the transition from school to employment.</td>
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<td>85. Providing services needed to assist vocational technical students in making a transition from secondary/high school vocational technical education to the post-secondary/college/university level.</td>
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<td>86. Preparing vocational technical students to transfer vocational technical competencies from one occupation to another.</td>
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<td>87. Guiding vocational technical students to develop decision making skills, self-awareness, interpersonal skills, and effective communication with employers/clients.</td>
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<td>88. Directing vocational technical students to relevant literature and agencies outside the school that provide information on specific aspects of different occupations.</td>
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<td>89. Guiding vocational technical students in discussing their own occupational/career aspirations.</td>
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<td>90.</td>
<td>Conducting home visitations to assess vocational technical students' self-employment career opportunities.</td>
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<td>91.</td>
<td>Conducting individual conferences with vocational technical students on career aspirations and job opportunities.</td>
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<td>Conducting group conferences with vocational technical students on career aspirations and job opportunities.</td>
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<td>93.</td>
<td>Interpreting occupational test results to vocational technical students.</td>
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<td>Establishing communication channels for information exchange and cooperation with career guidance school personnel.</td>
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<td>Providing career guidance school personnel with vocational technical student performance data.</td>
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<td>Collaborating with the Ministry of Education, Educational Testing, Guidance, and Psychological Services for the administration of aptitude tests to vocational technical students.</td>
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<td>Writing letters of recommendation for job/college/university/placement for vocational students.</td>
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<td>Instructing vocational technical students in securing and completing applications for jobs, scholarships, or admission to college/university.</td>
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<td>104. Recruiting members for the vocational technical student organization/</td>
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<td>1. Program Evaluation</td>
<td>110. Specifying evaluation techniques and criteria which determine satisfaction of minimum as well as desirable student performance at the completion of the learning activities.</td>
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<td>112. Conducting a student follow-up evaluation as a part of a vocational technical education program.</td>
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<td>113. Using vocational technical evaluation techniques and instruments designed to diagnose vocational technical students' academic, occupational, and social development needs.</td>
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<td>2.75 (3.05) 3.03</td>
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<td>114. Evaluating vocational technical instruction using a variety of techniques to determine the effectiveness in helping vocational technical students attain occupational goals.</td>
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<td>116. Providing constructive input to the Inspectorate division of the Ministry of Education in evaluating school vocational technical education programs.</td>
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<td>118. Assessing students' performance of competencies as the primary source of evidence of skill acquisition.</td>
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<td>120. Evaluating vocational technical students' interests and abilities to pursue a chosen occupation.</td>
<td>4.03</td>
<td>4.02</td>
<td>4.18</td>
<td>3.60</td>
<td>3.07</td>
<td>2.93</td>
<td>3.55</td>
<td>3.46</td>
</tr>
<tr>
<td></td>
<td>121. Constructing vocational technical education student evaluation instruments/grade sheets.</td>
<td>4.04</td>
<td>(3.56)</td>
<td>(3.75)</td>
<td>(3.85)</td>
<td>3.32</td>
<td>(2.52)</td>
<td>3.18</td>
<td>3.35</td>
</tr>
<tr>
<td>J. Professional Development</td>
<td>122. Developing a personal teaching style consistent with your belief and the Swaziland government's philosophy/principles of vocational education.</td>
<td>4.02</td>
<td>(3.78)</td>
<td>3.93</td>
<td>3.73</td>
<td>3.27</td>
<td>2.63</td>
<td>3.23</td>
<td>3.48</td>
</tr>
<tr>
<td></td>
<td>123. Using appropriate channels to keep up-to-date with professional developments in vocational technical education.</td>
<td>4.16</td>
<td>4.20</td>
<td>4.28</td>
<td>(4.20)</td>
<td>3.33</td>
<td>3.02</td>
<td>3.50</td>
<td>(3.75)</td>
</tr>
<tr>
<td></td>
<td>124. Responding to changing trends within the vocational technical education profession.</td>
<td>4.18</td>
<td>4.29</td>
<td>4.18</td>
<td>4.08</td>
<td>3.58</td>
<td>3.04</td>
<td>3.51</td>
<td>3.43</td>
</tr>
<tr>
<td></td>
<td>125. Assessing individual professional growth plans in the vocational technical education profession.</td>
<td>(3.82)</td>
<td>3.83</td>
<td>3.83</td>
<td>3.69</td>
<td>(3.04)</td>
<td>(2.57)</td>
<td>3.15</td>
<td>3.28</td>
</tr>
<tr>
<td></td>
<td>126. Determining services and activities to be provided by a vocational technical education professional organization.</td>
<td>3.96</td>
<td>(3.78)</td>
<td>(3.78)</td>
<td>(3.55)</td>
<td>3.16</td>
<td>(2.57)</td>
<td>(2.78)</td>
<td>(3.15)</td>
</tr>
<tr>
<td></td>
<td>127. Showing respect for individuals in the vocational technical education profession regardless of differences of opinion.</td>
<td>4.23</td>
<td>3.91</td>
<td>4.03</td>
<td>4.10</td>
<td>(3.70)</td>
<td>2.85</td>
<td>3.43</td>
<td>3.50</td>
</tr>
<tr>
<td></td>
<td>128. Supervising specially funded programs/research projects.</td>
<td>3.96</td>
<td>3.91</td>
<td>4.08</td>
<td>3.35</td>
<td>3.47</td>
<td>2.91</td>
<td>3.38</td>
<td>3.65</td>
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</table>

(Table continues)
(Table 6)

<table>
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<tr>
<th>Competency Area</th>
<th>Competency</th>
<th>Importance by Specialty Group</th>
<th>Performance by Specialty Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>AG&lt;sup&gt;a&lt;/sup&gt;</td>
<td>CO&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>K. Interpersonal Relations</td>
<td>129. Participating in activities designed to update professional competencies in vocational technical education.</td>
<td>(4.23)</td>
<td>(4.33)</td>
</tr>
<tr>
<td>130. Developing skills to conduct research projects in vocational technical education.</td>
<td>4.04</td>
<td>3.96</td>
<td>4.06</td>
</tr>
<tr>
<td>131. Expressing honesty in dealing with the feelings and opinions of vocational technical teachers and students.</td>
<td>4.19</td>
<td>4.19</td>
<td>4.50</td>
</tr>
<tr>
<td>132. Displaying dependability in relationships with vocational technical students and teachers.</td>
<td>3.75</td>
<td>3.85</td>
<td>3.93</td>
</tr>
<tr>
<td>133. Demonstrating professional integrity in relationships with vocational technical teachers and students.</td>
<td>3.98</td>
<td>4.09</td>
<td>4.20</td>
</tr>
<tr>
<td>134. Demonstrating self-control in dealing with vocational technical students and teachers.</td>
<td>3.98</td>
<td>4.15</td>
<td>4.18</td>
</tr>
<tr>
<td>135. Recognizing tribal/ethnic/nationality differences among vocational technical students and teachers.</td>
<td>(3.44)</td>
<td>3.38</td>
<td>3.25</td>
</tr>
<tr>
<td>136. Respecting religious preferences and commitments of vocational technical teachers and students.</td>
<td>3.88</td>
<td>(3.31)</td>
<td>(2.85)</td>
</tr>
<tr>
<td>137. Expressing degree of worthiness of other vocational technical teachers and students in other vocational technical programs.</td>
<td>3.96</td>
<td>3.65</td>
<td>3.38</td>
</tr>
<tr>
<td>138. Expressing degree of worthiness of teachers and students in general education.</td>
<td>4.02</td>
<td>3.72</td>
<td>3.60</td>
</tr>
<tr>
<td>139. Participating in group discussions with vocational technical teachers.</td>
<td>4.18</td>
<td>4.35</td>
<td>4.23</td>
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</table>

(Table continues)
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<thead>
<tr>
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<tr>
<td></td>
<td></td>
<td>AG^a</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>n = 57</td>
<td>n = 54</td>
</tr>
<tr>
<td>140.</td>
<td>Improving the climate to enhance interpersonal relationships among vocational technical teachers.</td>
<td>4.09</td>
<td>3.68</td>
</tr>
<tr>
<td>141.</td>
<td>Demonstrating behavior worthy of other vocational technical teachers' confidence.</td>
<td>3.91</td>
<td>3.83</td>
</tr>
<tr>
<td>142.</td>
<td>Demonstrating a degree of trust among vocational technical teachers.</td>
<td>4.16</td>
<td>3.96</td>
</tr>
<tr>
<td>143.</td>
<td>Exhibiting decision making ability among vocational technical teachers.</td>
<td>3.91</td>
<td>3.77</td>
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<tr>
<td>144.</td>
<td>Inspiring change in professional habits of vocational technical teachers.</td>
<td>3.63</td>
<td>3.57</td>
</tr>
<tr>
<td>145.</td>
<td>Demonstrating a leadership role as a vocational technical teacher.</td>
<td>4.19</td>
<td>4.02</td>
</tr>
<tr>
<td>146.</td>
<td>Handling conflict resolutions among vocational technical education teachers.</td>
<td>3.86</td>
<td>3.93</td>
</tr>
<tr>
<td>147.</td>
<td>Stimulating vocational technical education teachers through professional discussions.</td>
<td>4.14</td>
<td>4.13</td>
</tr>
<tr>
<td>148.</td>
<td>Sharing concern for lack of student interest in vocational technical education with other teachers.</td>
<td>4.09</td>
<td>4.15</td>
</tr>
<tr>
<td>149.</td>
<td>Inspiring vocational technical teachers with positive ideas on vocational technical education.</td>
<td>4.18</td>
<td>4.13</td>
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<td>150.</td>
<td>Demonstrating sincerity in relationships with vocational technical students.</td>
<td>4.14</td>
<td>4.07</td>
</tr>
<tr>
<td>151.</td>
<td>Treating vocational technical students equally regardless of sex.</td>
<td>4.26</td>
<td>(4.43)</td>
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</table>
(Table 6)

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Competency</th>
<th>AG(^b) n = 57</th>
<th>CO(^b) n = 54</th>
<th>HE(^b) n = 40</th>
<th>TE(^b) n = 40</th>
<th>AG(^c) n = 57</th>
<th>CO(^c) n = 54</th>
<th>HE(^c) n = 40</th>
<th>TE(^c) n = 40</th>
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<tbody>
<tr>
<td>152.</td>
<td>Expressing sensitiveness in relationships in dealing with vocational technical students' performances.</td>
<td>3.70</td>
<td>3.70</td>
<td>2.33</td>
<td>3.59</td>
<td>3.28</td>
<td>2.70</td>
<td>2.80</td>
<td>3.21</td>
</tr>
<tr>
<td>153.</td>
<td>Acquiring personal habits which are acceptable to vocational technical students.</td>
<td>3.86</td>
<td>3.62</td>
<td>3.46</td>
<td>3.44</td>
<td>3.26</td>
<td>2.88</td>
<td>2.95</td>
<td>3.21</td>
</tr>
<tr>
<td>154.</td>
<td>Accepting different family socioeconomic backgrounds of vocational technical students.</td>
<td>4.09</td>
<td>3.65</td>
<td>3.93</td>
<td>3.71</td>
<td>3.54</td>
<td>2.92</td>
<td>3.08</td>
<td>3.58</td>
</tr>
<tr>
<td>155.</td>
<td>Communicating sensitiveness to vocational technical education students' needs.</td>
<td>3.68</td>
<td>3.52</td>
<td>3.43</td>
<td>3.66</td>
<td>3.16</td>
<td>2.72</td>
<td>2.83</td>
<td>3.29</td>
</tr>
<tr>
<td>156.</td>
<td>Adjusting to communicable vocational technical education language of the workplace/climate.</td>
<td>3.96</td>
<td>3.67</td>
<td>3.85</td>
<td>3.95</td>
<td>3.30</td>
<td>2.98</td>
<td>3.18</td>
<td>3.62</td>
</tr>
<tr>
<td>157.</td>
<td>Responding to community needs that are related to vocational technical education.</td>
<td>4.19</td>
<td>4.21</td>
<td>4.25</td>
<td>3.89</td>
<td>3.40</td>
<td>3.32</td>
<td>3.53</td>
<td>3.62</td>
</tr>
<tr>
<td>158.</td>
<td>Accomplishing professional responsibilities in a timely manner.</td>
<td>4.23</td>
<td>3.96</td>
<td>3.80</td>
<td>4.11</td>
<td>3.23</td>
<td>3.10</td>
<td>3.30</td>
<td>3.61</td>
</tr>
<tr>
<td>159.</td>
<td>Making valid judgments in conducting vocational technical education programs.</td>
<td>4.04</td>
<td>4.06</td>
<td>3.98</td>
<td>3.97</td>
<td>3.25</td>
<td>3.17</td>
<td>3.10</td>
<td>3.73</td>
</tr>
<tr>
<td>160.</td>
<td>Displaying open-mindedness in handling vocational technical personnel situations.</td>
<td>4.12</td>
<td>3.74</td>
<td>4.00</td>
<td>4.03</td>
<td>3.33</td>
<td>2.83</td>
<td>3.38</td>
<td>3.47</td>
</tr>
<tr>
<td>161.</td>
<td>Engaging in vocational technical team teaching without discrimination.</td>
<td>(4.29)</td>
<td>(4.33)</td>
<td>4.50</td>
<td>(4.45)</td>
<td>3.74</td>
<td>3.50</td>
<td>(3.90)</td>
<td>(4.05)</td>
</tr>
</tbody>
</table>

\(^a\) AG=Agriculture, CO=Commercial, HE=Home Economics, TE=Technical

\(^b\) Importance Scale: 5=of very high importance; 4=of high importance; 3=of medium importance; 2=of low importance; 1=of very low importance; 0=of no importance

\(^c\) Performance Scale: 5=of excellent ability to perform; 4=of very good ability to perform; 3=of good ability to perform; 2=of fair ability to perform; 1=of poor ability to perform; 0=of no ability to perform

\(^d\) \(_{ij}\) represents the highest and lowest ranking means within competency area by specialty group.

\(^e\) ___ represents means that are in a different category rating from the mean rating by other specialty groups.
Research Question 3

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

Differences across the four specialty groups regarding the importance rating of the competencies in the area of program planning and development were shown in Table 6. Of the 15 competencies, all four groups rated the same 10 competencies as "high" or "very high" in importance.

Commercial teachers differed from the other three specialty groups by rating the following competencies higher in importance: No. 6 "Interpreting the Swaziland Industrial and Training Acts" (3.52), No. 7 "Communicating Swaziland Labor laws to vocational technical students" (3.61), and No. 11 "Articulating/coordinating the secondary/high school vocational education program with the postsecondary vocational education centers/institutions, Swaziland College of Technology, and University of Swaziland" (4.63). The former competency was rated as being of "high importance" whereas, the latter competency was rated as being of "very high importance."

Home economics teachers differed in their perceptions by rating the competencies, No. 8 "Interpreting national manpower and labor statistics to develop/revise vocational technical education curricula" (3.35), and No. 10 "Evaluating the influence of Swaziland teachers' beliefs about vocational technical education program" (3.38), of "medium importance." These ratings were lower than those given by the other three specialty groups, thus the difference in perception. Furthermore, home economics and technical teachers also rated lower than the other two specialty groups the competency, No. 13 "Interpreting occupational information and community survey data" with mean
values of 3.43 and 3.05, respectively. These ratings fell in the "medium importance" category whereas the other two specialty groups rated the same competency as being of "high importance." Technical teachers were the only ones who rated as being of "medium importance" the competency, No. 12 "Identifying persons to be served by a vocational technical education program" (3.38) whereas, the other three specialty groups rated the competency as being of "high importance."

Research Question 4

What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

Of the 15 competencies in Program Planning and Development, agricultural and technical teachers indicated their levels of performance as "good ability to perform" for 13 of the competencies, while home economics and commercial teachers rated their performance as "good ability to perform" for 12 and 11 of the competencies, respectively (Table 6).

Rated highest, yet with only a "good ability" to perform by agricultural, home economics, and technical teachers was the competency, No. 4 "Cooperating with a vocational technical education advisory committee in selecting and developing a vocational program that reflects present and future trends of Swaziland's economy" with mean values of 3.46, 3.45 and 3.43, respectively. Commercial teachers rated highest in their ability to perform the competency, No. 11 "Articulating/coordinating the secondary/high school vocational technical education program with the postsecondary vocational
education centers/institutions, Swaziland College of Technology, and University of Swaziland" (3.26), a "good ability" rating.

Rated lowest in ability to perform by commercial and home economics teachers was the competency, No. 6 "Interpreting the Swaziland Industrial and Training Acts" with mean values of 2.24 and 2.18, respectively, a "fair ability" rating. On the other hand, agricultural and technical teachers rated lowest in ability to perform, again a "fair ability," rating the competency, No. 7 "Communicating Swaziland Labor Laws to vocational technical education students" with mean values of 2.14 and 2.15, respectively. These data were reported in Table 6.

Research Question 5

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

Of the 15 competencies, all four groups rated the same 11 competencies as a "good ability" to perform. No competency was rated by all four groups with a "very good ability" to perform.

Differences were noted in this competency area among the four specialty groups in regard to their abilities to perform the competencies. Commercial and home economics teachers rated as being of "fair ability" to perform the competency, No. 8 "Interpreting national manpower and labor statistics to develop/revise vocational technical education curricula" with mean values of 2.44 and 2.40, respectively, a lower ability than the other two groups. Furthermore, commercial teachers differed from the other three specialty groups in rating their ability as lower to perform the competency, No. 13 "Interpreting
occupational information and community survey data" (2.40), a "fair ability" to perform (Table 6).

**Competency Area: School-Community Relations**

**Research Question 2**

What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

Agricultural, commercial, and home economics teachers rated all six competencies in the School Community Relations Competency Area as being of "high importance." Technical teachers, on the other hand, rated of "high importance" four of the six competencies with the other two rated as being of "medium importance."

Rated highest in importance in this competency area by agricultural and home economics teachers was the competency, No. 18 "Establishing relationships with parents of vocational technical students and understanding students' home conditions" with mean values of 4.28 and 4.25, respectively, a "high importance" rating. Rated "high importance" by commercial and technical teachers was the competency, No. 21 "Conducting conferences with parents of vocational technical students who are having difficulty with their children's choices of occupations/careers" with mean scores of 4.25 and 3.83, respectively. These were reported in Table 6.

The competency, No 19 "Conducting conferences with parents of vocational technical students at home and school to promote vocational technical education" with mean scores of 3.64, 3.70, and 3.23 were rated lowest
by commercial, home economics, and technical teachers, respectively. Commercial and home economics teachers rated this competency as being of "high importance" while technical teachers rated the competency "medium importance." Agricultural teachers, on the other hand, rated lowest in importance the competencies, No. 16 "Implementing public relations activities for promoting the field of vocational technical education," and No. 20 "Assessing conditions in the community where vocational technical students live" both with mean values of 3.93, a "high importance" rating.

**Research Question 3**

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

Of the six competencies, all four specialty groups rated the same four competencies as "high importance." Technical teachers differed from the other three specialty groups as they rated two competencies as being of "medium importance" whereas, the other three specialty groups rated all the competencies as being of "high importance." The competencies technical teachers rated as being of "medium importance" were: No. 18 "Establishing relationships with parents of vocational technical students and understanding students' home conditions" (3.38), and No. 19 "Conducting conferences with parents of vocational technical students at home and school to promote vocational technical education" (3.23). These data were reported in Table 6.
Research Question 4

What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

Agricultural and commercial teachers rated their abilities to perform all six competencies in the School-Community Relations Area as being of "good ability," whereas, home economics and technical teachers had five of the six in which they rated their performance as being of "good ability." Home economics teachers rated their performance of one of the five competencies as being of "very good ability," whereas technical teachers rated their performance on one of the six competencies as being of "poor ability" (Table 6).

Agricultural and technical teachers rated highest in their performance the competency, No. 20 "Assessing conditions in the community where vocational technical students live," 3.26 and 3.00, respectively, as being of "good ability." Commercial and home economics teachers rated highest in their performance the competencies, No. 21 "Conducting conferences with parents of vocational technical students who are having difficulty with their children's choices of occupations/careers" (2.94), and No. 18 "Establishing relationships with parents of vocational technical students and understanding students' home conditions" (3.55), a "good ability" and "very good ability" to perform, respectively.

There was great variation across the four specialty groups in respect of the lowest performance ratings. Rated lowest in performance by agricultural teachers and placed in the "good ability" category was the competency, No. 17 "Implementing human relations and activities for developing parents' self-confidence in vocational technical students" (2.72). Commercial teachers on the other hand, rated lowest their performance of No. 16 "Implementing public
relations activities for promoting the field of vocational technical education" (2.52) as being of "good ability." The competency, No. 19 "Conducting conferences with parents of vocational technical students at home and school to promote vocational technical education" (3.00) was rated lowest by home economics teachers as being of "good ability" in respect of their ability to perform it. The technical teachers rated lowest in their performance the competency, No. 21 "Conducting conferences with parents of vocational technical students who are having difficulty with their children's choices of occupations/careers" (1.13), a "poor ability" rating. This was the only competency of the 161 rated by any specialty group as a "poor ability" to perform.

Research Question 5

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

Of the six competencies, all four groups of teachers rated the same competencies as a "good ability" to perform. No competency was rated by all four groups with a "very good ability" to perform. A denotation of differences among the four specialty groups in terms of performance of the competencies revealed that home economics and technical teachers differed from the other two specialty groups. Home economics teachers rated their performance of the competency, No. 18 "Establishing relationships with parents of vocational technical students and understanding students' home condition" (3.55), a "very good ability" rating. Technical teachers, on the other hand, differed by rating their performance of the competency, No. 21 "Conducting conferences with
parents of vocational technical students who are having difficulty with their children's choices of occupations/careers" (1.13) as being of "poor ability" to perform (Table 6).

**Competency Area: School and Business-Industry Relations**

**Research Question 2**

What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

Agricultural teachers were the only specialty group that rated the importance of all 15 competencies in the School and Business-Industry Relations Area as being of "high importance." Commercial and home economics teachers as specialty groups, each rated 14 of the 15 competencies as being of "high importance." In respect of technical teachers, 13 of the 15 competencies were rated as being of "high importance." It must be noted that commercial teachers were the only respondents with a "very high importance" rating in this competency area with the competency, No. 22 "Collaborating with business and industry in planning and conducting vocational technical education program" (4.55) (Table 6).

Rated highest in importance by agricultural teachers was the competency, No. 23 "Conducting a survey of business and industry to determine prospective employer/occupational needs in your teaching/specialty area" (4.21), a "high importance" rating. Commercial teachers rated the competency, No. 22 "Collaborating with business and industry in planning and conducting vocational technical education program" (4.55) as being of "very high
importance," a highest rating by the group. The same competency was rated highest in importance by home economics teachers with a mean value of 4.25, a "high importance" rating. Also rated "high importance" by home economics teachers was the competency, No. 28 "Matching attitudes and interests of vocational technical students to job/internship experience (cooperative education) placement" (4.25).

Technical teachers rated highest in importance the competency, No. 24 "Working with business and industry in selecting vocational technical education content in your specialty area" (4.23), a "high importance" rating.

The competency, No. 33 "Updating internship experience (cooperative education) records of vocational technical students" was rated lowest in importance by agricultural (3.79, a "high importance" rating), home economics (3.45, a "medium importance" rating), and commercial (3.72, a "high importance" rating) teachers. In addition, commercial teachers also rated lowest in importance competency, No. 34 "Evaluating vocational technical students' internship (cooperative education) experiences with business and industry" with a "high importance" rating mean of 3.72. Technical teachers rated lowest in importance the competency, No. 35 "Instructing students in the principles and practices of internship experiences (cooperative education) in vocational technical education" with a mean value of 3.36, a "medium importance" rating.
Research Question 3

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

Of the 15 competencies, all four specialty groups rated the same 13 competencies as "high" or "very high" in importance. Observed differences among the four specialty groups were recorded in Table 6 with commercial teachers being the only group of respondents with a mean value of 4.55, a "very high importance" rating in the competency, No. 22 "Collaborating with business and industry in planning and conducting vocational technical education program." Home economics and technical teachers responded similarly, and differed from the other two specialty groups when they rated lower the competency, No. 33 "Updating internship experience (cooperative education) records of vocational technical students" with mean values of 3.45 and 3.44, respectively, both denoting a "medium importance" rating. In addition, technical teachers only perceived the competency, No. 35 "Instructing students in the principles and practices of internship experiences (cooperative education) in vocational technical education" with a mean value of 3.36, differently from the other three specialty groups, a "medium importance" rating.

Research Question 4

What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

Agricultural and technical teachers rated all 15 competencies in the competency area of School and Business-Industry Relations as being of "good ability" in respect to their performance. On 13 of the 15 competencies,
commercial teachers rated their performance as "good ability" to perform and on the remaining two competencies they rated their performance as "fair ability" to perform. On 14 of the 15 competencies, home economics teachers rated their performance as "good ability" with the remaining competency rated as "very good ability" to perform (Table 6).

Rated highest in performance by agricultural teachers was the competency, No. 34 "Evaluating vocational technical students' internship (cooperative education) experiences with business and industry" (2.98), a "good ability" rating. However, commercial teachers rated highest in performance the competency, No. 22 "Collaborating with business and industry in planning and conducting vocational technical education program" (3.36), a "good ability" rating. The competency, No. 28 "Matching attitudes and interests of vocational technical students to job/internship experience (cooperative education) placement" with a mean value of 3.53, a "very good ability" rating was the highest rating by home economics teachers. In regard to technical teachers, they rated highest in performance the competency, No. 23 "Conducting a survey of business and industry to determine prospective employer/occupational needs in your teaching/specialty area" with a mean value of 3.38, a "good ability" rating.

An examination of Table 6 indicated that the lowest rated competency in terms of the respondents' ability to perform was the competency, No. 27 "Developing criteria and procedures for selecting and assigning vocational technical students for internships (cooperative education)" by agricultural (2.68) and home economics (2.75), both with a "good ability," and commercial (2.41), and home economics (2.75), in the "fair ability" performance category.
Technical teachers rated lowest in performance the competencies, No. 36 "Preparing on-site supervisors who will be working with students in vocational technical education internships" (2.88) and No. 34 "Evaluating vocational technical students' internship (cooperative education) experiences with business and industry" (2.88), in both of which respondents rated their performance as a "good ability."

**Research Question 5**

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

Of the 15 competencies, all four groups rated the same 12 competencies as a "good ability" to perform. No competency was rated by all four groups with a "very good ability" to perform. Data in Table 6 revealed that commercial teachers differed from the other three specialty groups in a lower self-reported ability to perform the competencies, No. 30 "Implementing a system for coordinating the learning experiences of vocational technical education students during their internship (cooperative education) with business and industry" (2.48), and No. 27 "Developing criteria and procedures for selecting and assigning vocational technical students for internships (cooperative education)" (2.41), both in the "fair ability" performance category.

Home economics teachers also differed from the other three specialty groups in respect of the competency, No. 28 "Matching attitudes and interest of vocational technical students to job/internship experience (cooperative education) placement" with a mean value of 3.53, a "very good ability" rating, which was higher than the others.
Competency Area: Curriculum Development

Research Question 2

What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

Agricultural and technical teachers rated all nine competencies in the Curriculum Development Area as "high importance." Commercial and home economics specialty groups each rated eight of the nine competencies "high importance" whereas, the remaining two competencies were each rated "very high importance" by both specialty groups.

Data in Table 6 further indicated that the highest rated competency in importance by agricultural, commercial, and technical teachers was, No. 42 "Working with teacher education/training institutions and subject panels to identify competencies for a vocational curriculum in your teaching/specialty area" with mean values of 4.35 ("high importance"), 4.57 ("very high importance"), and 4.15 ("high importance"), respectively. Home economics teachers rated highest in importance the competency, No. 45 "Reviewing vocational technical curriculum materials to determine quality and relevance of the curriculum content" with a mean value of 4.53, a "very high importance" rating.

Agricultural and home economics teachers rated lowest in importance the competency, No. 43 "Conducting an occupational/job analysis" with mean values of 3.77 and 3.63, respectively, both in the "high importance" rating category. A further examination of the curriculum development area revealed
that the commercial and technical teachers rated lowest in importance the competency, No. 41 "Incorporating instructional content from related fields that has implications for vocational technical education" with mean values of 3.78 and 3.53, respectively, a "high importance" rating. In addition, the commercial teachers also rated lowest in importance the competency, No. 37 "Assisting in the development of a comprehensive vocational technical education curriculum" with a mean value of 3.78, a "high importance" rating.

**Research Question 3**

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

All nine competencies were rated as "high" or "very high" in importance by all four specialty groups (Table 6). Observed differences among the four specialty groups were noted in respect of the importance ratings by commercial and home economics teachers. Commercial teachers rated higher the competency, No. 42 "Working with teacher education/training institutions and subject panels to identify competencies for a vocational curriculum in your teaching/specialty area" with a "very high importance" rating of 4.57. Home economics teachers who rated the competency, No. 45 "Reviewing vocational technical curriculum materials to determine quality and relevance of the curriculum content" as of "very high importance" also differed from the other three specialty groups. No further differences among the specialty groups were noted (Table 6).
Research Question 4

What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

On all nine competencies, agricultural teachers' ratings were in the "good ability" to perform category. For commercial and technical teachers, eight of the nine competencies were rated as "good ability" in their being able to perform, and one competency in each group was rated with a "very good ability" in their performance. Home economics teachers rated seven of the nine competencies as "good ability" and two as "very good ability" (Table 6).

The competency, No. 42 "Working with teacher education/training institutions and subject panels to identify competencies for a vocational curriculum in your teaching/specialty area," was rated highest in the ability to perform by agricultural (3.28), commercial (3.51), and home economics (3.68) teachers. The rating by the agricultural teachers was in the "good ability" rating category while the commercial and home economics teachers' rating was in the "very good ability" category. In addition, home economics teachers' rating of the competency, No. 45 "Reviewing vocational technical curriculum materials to determine quality and relevance of the curriculum content" (3.68) was also in the "very good ability" category. However, technical teachers rated highest in performance the competency, No. 40 "Developing a vocational technical curriculum in own subject matter/content area" (3.5), a "very good ability" rating.

Rated lowest in performance was the competency, No. 37 "Assisting in the development of a comprehensive vocational technical education curriculum" by agricultural (2.67), commercial (2.54), and technical (2.87), all rated as "good ability" to perform. In addition, commercial teachers also rated lowest in
performance the competency, No. 41 "Incorporating instructional content from related fields that has implications for vocational technical education" (2.54), a "good ability" rating. However, home economics teachers rated lowest in their ability to perform the competency, No. 43 "Conducting an occupational/job analysis" with a mean value of 2.83, a "good ability" rating.

Research Question 5

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

Of the nine competencies, all four groups rated the same six competencies as a "good ability" to perform. In examining the differences among these four specialty groups, it was noted that commercial and home economics teachers perceived their ability as higher to perform the competency, No. 42 "Working with teacher education/training institutions and subject panels to identify competencies for a vocational curriculum in your teaching/specialty area" with mean values of 3.51 and 3.68, "very good ability" ratings, respectively. Home economics teachers alone also differed from the other three specialty groups in rating the competency, No. 45 "Reviewing vocational technical curriculum materials to determine quality and relevance of the curriculum content" with the mean value of 3.68, a "very good ability" rating. The technical teachers' rating of the competency, No. 40 "Developing a vocational technical curriculum in own subject matter/content areas" (3.50), a "very good ability" rating, differed higher from the self-reported performance of the other three specialty groups (Table 5).
Competency Area: Facilities and Equipment

Research Question 2

What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

On all 17 competencies in the Facilities and Equipment Area, technical teachers' ratings were in the "high importance" category. For agricultural, commercial, and home economics teachers, all had 16 of the 17 competencies rated as "high importance" with two of the remaining competencies rated as "very high importance" and one rated as "medium importance" (Table 6).

The competency with the highest rating of importance for agricultural, commercial, and technical teachers was, No. 53 "Providing safety measures for vocational technical education students using hazardous equipment/materials" with mean values of 4.63 ("very high importance"), 4.44 ("high importance"), and 4.45 ("high importance"), respectively. In addition, technical teachers also rated as "high importance" the competency, No. 57 "Providing for the storage and security of vocational technical education tools and equipment" (4.45). The competency that was rated highest by home economics teachers was, No. 62 "Providing for the first aid needs of vocational technical education students" with a mean of 4.60, a "very high importance" rating.

The lowest rated competency by both agricultural and home economics teachers was No. 51 "Designing a system for determining and collecting student fees for consumable vocational technical education supplies" with mean values of 3.67, "high importance," and 3.70, "high importance," respectively. On the other hand, commercial and technical teachers rated lowest in importance the
competency, No. 61 "Formulating a policy for use of the vocational technical education facilities and equipment by other school personnel and groups outside the school" with mean values of 3.46, "medium importance," and 3.56, "high importance," respectively.

Research Question 3

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

Of the 17 competencies, all four specialty groups rated the same 16 competencies as "high" or "very high" in importance. Differences on the perceptions of the importance among the four specialty groups were noted with agricultural, commercial, and home economics teachers. Agricultural teachers differed from the other three specialty groups in respect of competency, No. 53 "Providing safety measures for vocational technical education students using hazardous equipment/materials" with a mean value of 4.63, a "very high importance" rating. Home economics teachers also differed from the other three specialty groups in respect of competency, No. 62 "Providing for the first aid needs of vocational technical education students" with a mean value of 4.60, a "very high importance" rating. Commercial teachers also differed from the other three specialty groups in rating competency, No. 61 "Formulating a policy for use of the vocational technical education facilities and equipment by other school personnel and groups outside the school" with a mean value of 3.46, a "medium importance" rating (Table 6) which was lower than the others.
Research Question 4

What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

On 6 of the 17 competencies agricultural teachers rated themselves as being of "very good ability" to perform, whereas, in the remaining 11 they rated themselves as being of "good ability" to perform. Commercial teachers rated themselves as being of "good ability" to perform all 17 competencies in the Facilities and Equipment area. Of the 17 competencies, home economics teachers rated themselves as being of "very good ability" on 9, and "good ability" on 8 competencies. The technical teachers rated themselves as being of "very good ability" on 11 and "good ability" on 6 of the 17 competencies (Table 6).

Rated highest in performance by agricultural and technical teachers was the competency, No. 55 "Maintaining an inventory of vocational technical education tools, supplies, and equipment" with mean values of 3.88 ("very good ability") and 3.90 ("very good ability"), respectively. Commercial teachers rated highest in performance the competency, No. 48 "Preparing a capital outlay budget proposal for vocational technical education program" with a mean value of 3.13, a "good ability" rating. The competency, No. 56 "Designing a system for repairing and serving vocational technical education tools and equipment" was rated highest in performance by home economics teachers with a mean value of 3.98, a "very good ability" to perform rating.

The competency, No. 51 "Designing a system for determining and collecting student fees for consumable vocational technical education supplies" was rated lowest in performance by both agricultural and home economics.
teachers, and the mean values were 2.95 and 3.15 both in the "good ability" rating, respectively. However, commercial teachers rated lowest in performance the competency, No. 52 "Providing data for vocational technical education reports required by the Ministry of Education inspectorate division" with a mean value of 2.6, a "good ability" rating. Technical teachers rated lowest in performance the competency, No. 61 "Formulating a policy for use of the vocational technical education facilities and equipment by other school personnel and groups outside the school" with a mean value of 3.20, a "good ability" rating.

**Research Question 5**

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

There was a wide variation in the perceptions of the four specialty groups in terms of their ability to perform the competencies in this area. Of the 17 competencies, all four groups rated only the same five competencies as a "good ability" to perform. Agricultural teachers alone differed from the other three specialty groups in respect of the competency, No. 48 "Preparing a capital outlay budget proposal for vocational technical education program" with a mean value of 3.51, indicating a "very good ability" performance. Furthermore, both agricultural and commercial teachers differed from the other two specialty groups by perceiving their abilities as lower to perform the following competencies: No. 46 "Compiling a list of vocational technical education consumable supplies needed for the school year," 3.47 and 2.98; No. 56 "Designing a system for repairing and servicing vocational technical education
tools and equipment," 3.19 and 2.62; and No. 62 "Providing for the first aid needs of vocational technical education students," 3.16 and 2.80, respectively. Commercial teachers alone differed from the other three specialty groups as they rated lower the competency, No. 58 "Designing student check-out procedures for vocational technical education laboratory/workshop equipment, tools, and supplies" with a mean value of 2.87, a "good ability" rating (Table 6).

Differing from agricultural and commercial teachers were home economics and technical teachers who rated themselves as higher to perform the competency, No. 47 "Identifying new vocational technical education tools and equipment needed for the school year" with mean values of 3.60 and 3.75, respectively. Technical teachers alone perceived their ability as higher to perform the following competencies as being of "very good ability," differing from the other three specialty groups: No. 54 "Formulating with students' acceptable standards of behavior in vocational technical education classrooms and laboratories/workshops" (3.53), and No. 60 "Arranging layout of the vocational technical education laboratory/workshop to simulate the occupational workplace environment" (3.53).

**Competency Area: Planning and Executing Instruction**

**Research Question 2**

What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

On 16 of the 17 competencies, agricultural teachers perceived their importance as being of "high importance" and the one remaining was rated
"very high importance." Commercial teachers, however, rated all 17 competencies "high importance." Home economics and technical teachers each rated 15 of the 17 competencies "high importance," with home economics rating one of the remaining two competencies "very high importance" and the other "medium importance." For technical teachers the remaining two competencies were both rated as "medium importance" (Table 6).

Rated highest in importance by agricultural teachers and falling in the "very high importance" category was the competency, No. 71 "Creating an environment that facilitates learning of vocational technical subjects" (4.50). Commercial teachers rated highest in importance the competency, No. 67 "Identifying sites for field trips that provide learning environments" with a mean value of 4.49, a "high importance" rating. The competency, No. 65 "Using audio and visual equipment appropriate for a vocational technical lesson" with a mean of 4.63, a "very high importance" rating, was rated highest by home economics teachers. Technical teachers rated highest the competency, No. 66 "Applying vocational technical education instructional techniques, materials, and learning tools appropriate for the lesson objective" with a mean value of 4.21, a "high importance" rating.

The competency, No. 78 "Demonstrating identified performance competencies to vocational technical students" was rated lowest by agricultural teachers with a mean of 3.77, a "high importance" rating. Commercial, home economics, and technical teachers rated lowest in importance the competency, No. 79 "Performing daily vocational technical instructional tasks with minimal supervision" with means of 3.54, 3.49, and 3.46, respectively. The commercial teachers' rating was in the "high importance" category, whereas, both the home
economics and technical teachers' rating were in the "medium importance" category.

Research Question 3

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

Few differences in perceptions across the four specialty groups were noted in this competency area. Of the 17 competencies, all four specialty groups rated the same 15 competencies as "high" or "very high" in importance. Agricultural teachers differed from the other three specialty groups in rating "very high importance" the competency, No. 71 "Creating an environment that facilitates learning of vocational technical subjects" (4.50). Home economics teachers, however, differed from the other three specialty groups in their perception of the competency, No. 65 "Using audio and visual equipment appropriate for a vocational technical lesson" (4.63) by rating it "very high importance." Furthermore, home economics, along with technical teachers differed from the other two specialty groups by rating "medium importance" the competency, No. 79 "Performing daily vocational technical instructional tasks with minimal supervision" with means of 3.49 and 3.46, respectively. Technical teachers also rated "medium importance" the competency, No. 78 "Demonstrating identified performance competencies to vocational technical students" (3.45) (Table 6).
Research Question 4

What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

On 9 of the 17 competencies, agricultural teachers rated their performance as "very good ability" and on the remaining 8 competencies they rated their performance as "good ability." Commercial teachers rated their performance as "fair ability" on 1 competency and "good ability" on 16 competencies. On 11 of the competencies, home economics teachers rated themselves as being of "very good ability" to perform, whereas, on 6 competencies they rated themselves as being of "good ability" to perform. Technical teachers rated 8 of the 17 competencies as being of "very good ability" for them to perform, while on 9 of the competencies they rated themselves as "good ability" to perform (Table 6).

Agricultural teachers rated highest in their performance the competencies, No. 66 "Applying vocational technical education instructional techniques, materials, and learning tools appropriate for the lesson objective" (3.75) and No. 67 "Identifying sites for field trips that provide learning environments" (3.75) denoting a "very good ability" performance. Commercial teachers also rated highest in ability to perform the competency, No. 67 "Identifying sites of field trips that provide learning environments" with a mean value of 3.32, a "good ability" rating.

The competency, No. 65 "Using audio and visual equipment appropriate for a vocational technical lesson" with a mean of 3.93, a "very good ability" rating, was rated highest by home economics teachers. However, technical teachers rated highest in performance the competency, No. 72 "Sequencing
vocational technical instructional units (scheme of work) to enhance student learning" with a mean of 3.87, a "very good ability" rating.

Rated lowest in performance by agricultural teachers was the competency, No. 75 "Incorporating current educational research and development findings on student learning into vocational technical instructional practices" with a mean of 3.09, indicating a "good ability" rating. Commercial teachers, however, rated lowest in performance the competency, No. 73 "Adapting instructional activities and materials to enhance achievement of vocational technical education program goals and objectives" (2.44) and denoted their performance as "fair ability."

Teachers of home economics rated lowest in their ability to perform the competency, No. 79 "Performing daily vocational technical instructional tasks with minimal supervision" with a mean of 2.95 denoting a "good ability" performance. For teachers of technical studies the lowest rated competency in performance was, No. 78 "Demonstrating identified performance competencies to vocational technical students" with a mean of 3.18, indicating a "good ability" rating.

Research Question 5

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

Of the 17 competencies, all four groups only rated the same 5 competencies as a "good ability" to perform. Differences in ability to perform the competencies among the four specialty groups were observed with commercial teachers generally differing the most from the other three specialty groups.
Agricultural and commercial teachers were lower in their perceptions from the other two specialty groups in respect of competency, No. 73 "Adapting instructional activities and materials to enhance achievement of vocational technical program goals and objectives" rated 3.33 (a "good ability") and 2.44, a "fair ability" rating, respectively.

Commercial teachers differed from the other three specialty groups in their perceptions of the ability to perform the following competencies of which they rated lower: No. 66 "Applying vocational technical education instructional techniques, materials, and learning tools appropriate for the lesson objective" (3.09); No. 65 "Using audio and visual equipment appropriate for a vocational technical lesson" (2.94); No. 72 "Sequencing vocational technical instructional units (scheme of work) to enhance student learning" (2.91); No. 76 "Developing a lesson plan for a vocational instructional unit" (3.06); No. 69 "Demonstrating competency in using a variety of teaching methods in vocational technical education such as problem-solving, simulations, discovery, role play, discussion, projects" (2.94); and No. 71 "Creating an environment that facilitates learning of technical subjects" (3.02).

Commercial and technical teachers both differed from the other two specialty groups as they rated lower their performances of the following competencies as a "good ability" to perform: No. 67 "Identifying sites for field trips that provide learning environments" (3.32 and 3.31, respectively); No. 63 "Stating vocational technical instructional objectives in student performance terms" (2.94 and 3.41, respectively); and No. 64 "Classifying vocational technical instructional objectives into cognitive, psychomotor, and affective domains" (2.80 and 3.41, respectively).
For teachers of home economics, the differences from the other three specialty groups in terms of their performance was in respect of the competency, No. 68 "Developing opportunities for vocational technical students to observe and analyze a variety of occupational work facilities" (3.55) in which they rated higher their performance as "very good ability." However, technical teachers differed from the other three specialty groups by rating higher their performance of the following competency as a "very good ability:" No. 74 "Developing instructional materials and strategies which adequately support vocational technical education program when such materials are needed" (3.56).

Competency Area: Career Guidance

Research Question 2

What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

In their ratings, agricultural and commercial teachers considered all of the 20 competencies in the Career Guidance competency area as of "high importance." The teachers of home economics rated 19 of the 20 as of "high importance" and 1 as of "medium importance." Technical teachers on the other hand, rated 17 of the 20 competencies as of "high importance" with the remaining 3 rated as of "medium importance" (Table 6).

All four specialty groups rated highest in importance different competencies yet all highest rated competencies were in the "high importance" category. For instance, agricultural teachers rated highest the competency, No.
Disseminating occupational/career information to vocational technical students" (4.31). Teachers of commerce on the other hand, rated highest the competency, No. 82 "Assessing vocational technical students' aptitude/ability for occupations available in Swaziland" (4.34). Teachers of home economics rated highest in importance the competency, No. 84 "Providing services needed to assist vocational technical students in making the transition from school to employment" (4.44). The competency, No. 87 "Guiding vocational technical students to develop decision making skills, self-awareness, interpersonal skills, and effective communication with employers/clients" (4.18) was rated highest by teachers of technical studies.

Insofar as the lowest rated competencies were concerned, agricultural and home economics teachers both rated lowest in importance the competency, No. 93 "Interpreting occupational test results to vocational technical students" with mean values of 3.63 ("high importance") and 3.43 ("medium importance"), respectively. Teachers of commerce and technical studies, however, rated lowest in importance the competency, No. 90 "Conducting home visitations to assess vocational technical students' self-employment career opportunities" with mean values of 3.61 ("high importance") and 3.05 ("medium importance"), respectively.

**Research Question 3**

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

The four specialty groups were much in agreement in regard to the importance of the competencies in the Career Guidance Area (Table 6). Of the
20 competencies, all four groups rated the same 17 competencies as "high importance." However, there were a few differences in perceptions on three competencies. For instance, teachers of home economics and technical studies differed from the other two specialty groups as they both rated "medium importance" the competency, No. 93 "Interpreting occupational test results to vocational technical students" with means of 3.43 and 3.40, respectively. Technical teachers alone differed from the other three specialty groups when they rated lower as "medium importance" the following competencies: No. 90 "Conducting home visitations to assess vocational technical students' self-employment career opportunities" (3.05), and No. 91 "Conducting individual conferences with vocational technical students on career aspirations and job opportunities" (3.38).

Research Question 4

What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

On all the 20 competencies in the Career Guidance Area, teachers of agriculture and commerce rated them as "good ability" to perform them. However, teachers of home economics rated their ability to perform 4 of the 20 competencies as "very good ability," while on 16 competencies they rated their ability to perform as "good ability." Teachers of technical studies rated their ability to perform 2 of the 20 competencies as "very good ability" and 18 of the 20 competencies as "good ability" to perform (Table 6).
The competency, No. 98 "Writing letters of recommendation for job/college/university/placement for vocational students" was rated highest by agricultural teachers with a mean of 3.44, a "good ability" rating. The highest rated competency by teachers of commerce was, No. 99 "Instructing vocational technical students in securing and completing applications for jobs, scholarships, or admission to college/university," with a mean of 3.28, a "good ability" rating. Home economics teachers, on the other hand, rated highest in performance the competency, No. 85 "Providing services needed to assist vocational technical students in making a transition from secondary/high school vocational technical education to the postsecondary/college/university level" with a mean of 3.72, a "very good ability" rating. However, teachers of technical studies rated highest in performance the competency, No. 87 "Guiding vocational technical students to develop decision making skills, self-awareness, interpersonal skills, and effective communication with employers/clients," a "very good ability" rating with a mean of 3.55.

Teachers of agriculture rated lowest in performance two competencies, namely, No. 94 "Establishing communication channels for information exchange and cooperation with career guidance school personnel" (2.82) and No. 86 "Preparing vocational technical student to transfer vocational technical competencies from one occupation to another" (2.82), both ratings were in the "good ability" category. Teachers of commerce also rated lowest in performance the competency, No. 86 "Preparing vocational technical students to transfer vocational technical competencies from one occupation to another" with a mean value of 2.59, a rating of "good ability."
With teachers of home economics the lowest rated competency was, No. 93 "Interpreting occupational test results to vocational technical students" (2.75) which fell in the "good ability" category. The competency, No. 90 "Conducting home visitations to assess vocational technical students' self-employment career opportunities" was rated lowest in performance by teachers of technical studies with a mean of 2.63, a "good ability" rating.

Research Question 5

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

Of the 20 competencies, all four groups rated the same 15 competencies as a "good ability" to perform. However, some differences in the self-reported ability to perform the competencies were observed among the four specialty groups. For instance, teachers of agriculture and commerce differed in their rating from the other groups in the competency, No. 87 "Guiding vocational technical students to develop decision making skills, self-awareness, interpersonal skills, and effective communication with employers/clients" which was rated "good ability" by both groups with means of 3.23 and 3.00, respectively (Table 6).

Home economics teachers alone differed from the other three specialty groups in rating higher three competencies: No. 84 "Providing services needed to assist vocational technical students in making a transition from secondary/high school vocational technical education to the post-secondary/college/university level" (3.72), No. 83 "Providing vocational technical education information to all students" (3.62), and No. 84 "Providing
services needed to assist vocational technical students in making the transition from school to employment" (3.62), all rated "very good ability" in performance. However, teachers of technical studies differed from the other three specialty groups in rating higher the competency, No. 98 "Writing letters of recommendation for job/college/university/placement for vocational students" (3.50) as a "very good ability."

**Competency Area: Student Organization/Club**

**Research Question 2**

What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

On 9 of the 10 competencies in the Student Organization/Club Area, teachers of agriculture and home economics ranked them as "high importance," and the 1 competency remaining for each specialty group was ranked "medium importance." However, teachers of commerce rated "high importance" 7 of the 10 competencies and the remaining 3 competencies "medium importance." On the other hand, teachers of technical studies rated "high importance" 1 competency and 9 competencies "medium importance" (Table 6).

Rather interestingly, all four specialty groups rated highest in importance one competency each with a mean value in the "high importance" category. The competency rated highest by all four specialty groups was, No. 106 "Preparing vocational technical students to participate in district/regional, national, and international activities and contests" with mean values of 4.02 (agriculture), 3.72 (commerce), 4.23 (home economics), and 3.83 (technical).
There was also much agreement among the four specialty groups in respect of the lowest rated competencies as regarding importance. For instance, teachers of agriculture, commerce, and home economics rated lowest in importance, with all mean values in the "medium importance" category, the competency, No. 104 "Recruiting members of the vocational technical student organization/club" with mean values of 3.46, 3.17, and 3.40, respectively. The competency, No. 109 "Evaluating the outcomes of a vocational technical student organization/club" (2.88) was rated lowest by teachers of technical studies and categorized as of "medium importance."

Research Question 3

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

Of the 10 competencies, all four groups rated only 1 competency with the same rating of "high importance." Thus, there were some differences in opinion among the four specialty groups regarding the importance of the competencies in the area of Student Organization/Club. Agricultural and home economics teachers differed from the other two specialty groups in respect of the competency, No. 18 "Advertising the activities of the vocational technical student organization/club" which was rated higher with mean values of 3.70 and 4.15, respectively. Similarly, the competency, No. 105 "Establishing a vocational technical students organization/club contest awards program" was rated higher by agricultural and home economics teachers; it was rated as "high importance" by both specialty groups with mean ratings of 3.70 and 3.90, respectively (Table 6).
Teachers of technical studies alone differed from the other three specialty groups as they rated lower the following competencies as "medium importance": No. 100 "Securing internal and external support for the vocational technical student organization/club" (3.30), No. 107 "Guiding vocational technical student organization/club officers in developing a yearly program of activities" (3.35), No. 103 "Establishing a vocational technical student organization/club with a constitution and by-laws" (3.43), No. 109 "Evaluating the outcomes of a vocational technical student organization/club" (2.88), and No. 101 "Integrating vocational technical student organization activities into the vocational technical instructional program" (3.23).

Research Question 4

What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

All 10 competencies in the Student Organization/Club Area were rated as "good ability" to perform by both teachers of agriculture and technical studies. On 6 of the 10 competencies, commercial teachers rated themselves as of "good ability" to perform, and on the remaining 4 competencies, they rated themselves as "fair ability" to perform. On the other hand, teachers of home economics rated 8 of the competencies as "good ability" to perform, on 1 remaining they rated themselves as "very good ability" and on the other remaining competency as "fair ability" to perform (Table 6).

Rating highest in performance by teachers of agriculture was the competency, No. 109 "Evaluating the outcomes of a vocational technical student organization/club" with a mean of 3.28, a "good ability" rating. Teachers
of commerce, home economics, and technical studies all rated highest in performance the competency, No. 106 "Preparing vocational technical students to participate in district/regional, national, and international activities and contests" with means of 2.76, 3.55, and 3.28, respectively. In addition, teachers of commerce also rated highest in performance the competency, No. 107 "Guiding vocational technical student organization/club officers in developing a yearly program of activities" (2.76). Mean ratings of commercial and technical teachers were in the "good ability" category while that of the home economics teachers was in the "very good ability" category rating.

The competency, No. 101 "Integrating vocational technical student organization activities into the vocational technical instructional program" was rated lowest in performance by teachers of agriculture (2.77), and home economics (2.49). In addition, agricultural teachers also rated lowest in performance the competency, No. 100 "Securing internal and external support for the vocational technical student organization/club" (2.77). The mean values of agriculture teachers were in the "good ability" category while teachers of home economics' ratings were in the "fair ability" category.

By teachers of commerce and technical studies, the competency rated lowest in performance was No. 104 "Recruiting members for the vocational technical student organization/club" with means of 2.25 and 2.55, respectively. Commercial teachers rating was in the "fair ability" category while technical teachers' rating was in the "good ability" rating category.
Research Question 5

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

Of the 10 competencies, all four groups only rated the same 2 competencies as a "good ability" to perform. Differences among the four specialty groups in respect of their ability to perform the competencies of the competency area, Student Organization/Club were revealed in view of commercial and home economics teachers' rating. For instance, on rating the competency, No. 106 "Preparing vocational technical students to participate in district/regional, national, and international activities and contests" (3.55), home economics teachers differed from the other three specialty groups by rating higher the competency as "very good ability" to perform. Home economics teachers along with teachers of commerce, with an identical mean rating value of 2.49 differed from the other two specialty groups in rating lower the competency, No. 101 "Integrating vocational technical student organization activities into the vocational technical instructional program," as "fair ability" to perform (Table 6).

On three competency ratings, teachers of commerce differed from the other three specialty groups as they rated lower the following competencies as "fair ability": No. 100 "Securing internal and external support of the vocational technical student organization/club" (2.44), No. 103 "Establishing a vocational technical student organization/club with a constitution and by-laws" (2.32), and No. 104 "Recruiting members for the vocational technical student organization/club" (2.25).
Competency Area: Program Evaluation

Research Question 2

What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

On all but 1 of the 12 competencies in the Program Evaluation Area, the four specialty groups ratings of importance were in the "high importance" category ratings. Teachers of technical studies was the only specialty group that had a mean importance rating below the "high importance" category. The competency rated highest in importance by teachers of agriculture, commerce, and home economics was, conversely, rated lowest in importance by teachers of technical studies. Rather interestingly, teachers of technical studies equally rated highest in importance 5 of the 12 competencies in the Program Evaluation Area (Table 6).

The competency, No. 112 "Conducting a student follow-up evaluation as a part of a vocational technical education program" was rated highest in importance by teachers of agriculture (4.19), commerce (4.06), and home economics (4.33). On the contrary, teachers of technical studies rated highest in importance the five following competencies: No. 110 "Specifying evaluation techniques and criteria which determine satisfaction of minimum as well as desirable student performance at the completion of the learning activities" (3.85), No. 118 "Assessing students' performance of competencies as the primary source of evidence of skill acquisition" (3.85), No. 115 "Establishing criteria for evaluating the appropriateness of the vocational technical education program" (3.85), No. 116 "Providing constructive input to the inspectorate
division of the Ministry of Education in evaluating school vocational technical education programs" (3.85), and No. 121 "Constructing vocational technical education student evaluation instruments/grade sheets" (3.85).

Two competencies were rated lowest in importance by teachers of agriculture: No. 114 "Evaluating vocational technical instruction using a variety of techniques to determine the effectiveness in helping vocational technical students attain occupational goals" (3.89), and No. 113 "Using vocational technical evaluation techniques and instruments designed to diagnose vocational technical students' academic, occupational, and social development needs" (3.89), and both mean ratings were in the "high importance" rating category.

The competency, No. 121 "Constructing vocational technical education student evaluation instruments/grade sheets" was rated lowest in importance by teachers of commerce (3.56) and home economics (3.75), with both ratings in the "high importance" category.

Teachers of technical studies rated lowest in importance exactly the same competency that the other three specialty groups rated highest: No. 112 "Conducting a student follow-up evaluation as a part of a vocational technical education program" (3.43), a "medium importance" category rating.

Research Question 3

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

Specialty groups of teachers were much in agreement in regard to the importance of the competencies in the Program Evaluation Area. Only one
mean importance rating was lower from the rest of the mean values, that being teachers of technical studies in respect to the competency: No. 112 "Conducting a student follow-up evaluation as a part of a vocational technical education program" (3.43) (Table 6). Thus, all competencies were rated as either "high" or "very high" in importance.

Research Question 4

What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

All 12 competencies in the Program Evaluation Area were rated "good ability" in performance by teachers of agriculture and commerce. Two of the 12 competencies were rated "very good ability" by home economics teachers with the remaining 10 competencies rated "good ability" to perform. On all but 1 of the 12 competencies, technical teachers rated their ability to perform the competencies in this area as "good ability," the 1 remaining competency was rated "very good ability" to perform by this specialty group. The lowest rated competency in ability to perform by technical teachers was the highest rated in performance by teachers of agriculture and home economics (Table 6).

In rating their abilities to perform the competencies in the Program Evaluation Area, teachers of agriculture and home economics rated highest the competency, No. 112 "Conducting a student follow-up evaluation as a part of a vocational technical education program," with mean values of 3.42 and 3.62, "good ability" and "very good ability" ratings, respectively. On the other hand, teachers of commerce rated highest their ability to perform the competency, No. 118 "Assessing students' performance of competencies as the primary source
of evidence of skill acquisition" (2.94), a "good ability" rating. In rating their performance on the competencies in this competency area, technical teachers rated highest in ability to perform the competency, No. 116 "Providing constructive input to the inspectorate division of the Ministry of Education in evaluating school vocational technical education programs" (3.53), a "very good ability" rating.

The competency, No. 113 "Using vocational technical evaluation techniques and instruments designed to diagnose vocational technical students' academic, occupational, and social development needs" was rated lowest in ability to perform by both agricultural (2.89) and home economics (3.05) teachers. Furthermore, home economics teachers also rated lowest in ability to perform the competency, No. 199 "Determining vocational technical students' rates of progress through the vocational technical education program by demonstrated competency rather than by time or course completion" (3.05). All the three mean ability to perform values were in the "good ability" category.

Teachers of commerce in rating their performance of the competencies in the Program Evaluation Area had rated lowest the competency, No. 121 "Constructing vocational technical education student evaluation instruments/grade sheets" with a mean of 2.52, a "good ability" rating. On the other hand, the competency, No. 112 "Conducting a student follow-up evaluation as a part of a vocational technical education program" was rated lowest by technical teachers with a mean of 3.00, a "good ability" rating.
Research Question 5

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

There was much agreement among the four specialty groups regarding their abilities to perform the competencies in this competency area. Of the 12 competencies, all four groups rated the same 9 competencies as a "good ability" to perform. However, there were differences in perceived ability as teachers of home economics differed with the other three specialty groups in respect of competencies: No. 120 "Evaluating vocational technical students' interests and abilities to pursue a chosen occupation" (3.55), and No. 112 "Conducting a student follow-up evaluation as a part of a vocational technical education program" (3.62). Both of these mean ratings were in the "very good ability" to perform category, and higher than the other specialty groups (Table 6).

Teachers of technical studies also differed from the other three specialty groups in their rating higher the competency, No. 116 "Providing constructive input to the inspectorate division of the Ministry of Education in evaluating school vocational technical education programs" (3.53). This mean performance rating was in the "very good ability" category.
Competency Area: Professional Development

Research Question 2

What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

All four specialty groups rated all of the nine competencies in the Professional Development competency area as of "high importance." Three of the four specialty groups agreed on both the highest and lowest rated competencies (Table 6).

The competency, No. 129 "Participating in activities designed to update professional competencies in vocational technical education" was rated highest in importance by teachers of agriculture (4.23), commerce (4.33) and home economics (4.30). Furthermore, agricultural teachers also rated highest in importance the competency, No. 127 "Showing respect for individuals in the vocational technical education profession regardless of differences of opinion" (4.23). Teachers of technical studies on the other hand, rated highest in importance the competency, No. 123 "Using appropriate channels to keep up-to-date with professional developments in vocational technical education" (4.20). All competency mean ratings were in the "high importance" category.

In rating the lowest in importance competency, teachers of commerce, home economics, and technical studies had the competency, No. 126 "Determining services and activities to be provided by a vocational technical education professional organization" with mean values of 3.78, 3.78, and 3.55, respectively. Commercial teachers, in addition, also rated lowest in importance the competency, No. 122 "Developing a personal teaching style consistent with
your belief and the Swaziland government's philosophy/principles of vocational education" (3.78). However, agricultural teachers rated lowest in importance the competency, No. 125 "Assessing individual professional growth plans in the vocational technical education profession" (3.82). All mean values were in the "high importance" category.

Research Question 3

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

There were absolutely no differences among the four specialty groups in the competency area of Professional Development insofar as the importance ratings are concerned. All competencies were rated as "high importance" by all four specialty groups (Table 6).

Research Question 4

What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

Teachers of agriculture rated two of the nine competencies as "very good ability" to perform while on seven of the nine they rated themselves as being of "good ability" to perform. However, commercial teachers rated themselves as being of "good ability" to perform all nine competencies. In rating their abilities to perform the competencies in this competency area, home economics teachers rated three of the nine competencies as being of "very good ability" to perform, and six of the nine were rated as being of "good ability" for them to perform. On four of the nine competencies, technical teachers rated their
abilities to perform these competencies as "very good ability" while on five competencies they rated their performance as "good ability" to perform (Table 6).

Research Question 5

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

There was much difference in perceived self-reported abilities to perform the competencies in this area (Table 6). Of the nine competencies, all four groups rated the same four competencies as a "good ability" to perform. For instance, teachers of agriculture and commerce differed from the other two specialty groups in respect of the following competencies for which they both rated lower: No. 129 "Participating in activities designed to update professional competencies in vocational technical education" (3.44 and 3.22, respectively), and No. 123 "Using appropriate channels to keep up to date with professional developments in vocational technical education" (3.33 and 3.02, respectively).

Teachers of commerce and technical studies perceived their ability as lower to perform the competency, No. 124 "Responding to changing trends within the vocational technical education profession" a "good ability" rating with mean values of 3.04 and 3.43, respectively. Furthermore, commercial teachers along with home economics teachers differed from the other two specialty groups by rating lower their performance in respect to the competency, No. 127 "Showing respect for individuals in the vocational technical education profession regardless of differences of opinion," with mean values of 3.04 and 3.43, respectively. However, teachers of technical studies perceived their ability
to perform the competency, No. 128 "Supervising specially funded programs/research projects" (3.65) as "very good ability," higher than the other three specialty groups.

**Competency Area: Interpersonal Relations**

**Research Question 2**

What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?

Of the 31 competencies, teachers of agriculture and technical studies each rated 30 competencies as "high importance" and one competency by each group as "medium importance." With not much of a difference from teachers of agriculture and technical studies, commercial teachers had 29 competencies rated "high importance" and 2 rated "medium importance." Rather interestingly, home economics teachers rated 3 competencies "very high importance," 22 competencies "high importance," and 6 competencies "medium importance." The 3 competencies were the only ones with a "very high importance" rating in the Interpersonal Relations competency area (Table 6).

The competency, No. 161 "Engaging in vocational technical team teaching without discrimination" was rated highest in importance by both teachers of agriculture (4.29) and technical (4.45) studies. With teachers of commerce and home economics, the highest rated competency was No. 151 "Treating vocational technical students equally regardless of sex" with mean values of 4.43 and 4.67, respectively. The highest three mean ratings which were by home economics teachers were in the "very high importance" category. The
highest mean importance ratings by the other three specialty groups were in the "high importance" category.

The competency, No. 135 "Recognizing tribal/ethnic/nationality differences among vocational technical students and teachers" (3.44) was rated lowest in importance by agricultural teachers. The mean rating was in the "medium importance" category. However, teachers of commerce and home economics rated lowest in importance the competency, No. 136 "Respecting religious preferences and commitments of vocational technical teachers and students" with mean values of 3.31 and 2.98, respectively. Technical teachers on the other hand, had the competency, No. 153 "Acquiring personal habits which are acceptable to vocational technical students" (3.44). All lowest rated mean values were in the "medium importance" category.

Research Question 3

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

Of the 31 competencies in this area, all four groups rated the same 25 competencies as "high" or "very high" in importance. Teachers of home economics differed the most from the other three specialty groups by rating higher 3 competencies. Rated "very high importance" by home economics teachers were: No. 161 "Engaging in vocational technical team teaching without discrimination" (4.50), No. 151 "Treating vocational technical students equally regardless of sex" (4.67), and No. 131 "Expressing honesty in dealing with the feelings and opinions of vocational technical teachers and students" (4.50) (Table 6). Furthermore, on another 3 competencies, but rated "medium
importance," teachers of home economics differed from the other three specialty groups by lower ratings: No. 137 "Expressing degree of worthiness of other vocational technical teachers and students in other vocational technical programs" (3.38), No. 155 "Communicating sensitiveness to vocational technical education students' needs" (3.43), and No. 152 "Expressing sensitiveness in relationships in dealing with vocational technical students' performances" (3.33).

On rating the competency, No. 153 "Acquiring personal habits which are acceptable to vocational technical students," teachers of home economics and technical studies differed from the other two specialty groups as they rated lower this competency with mean values of 3.46 and 3.44, respectively.

On rating the competency, No. 136 "Respecting religious preferences and commitments of vocational technical teachers and students," commercial and home economics teachers differed from the other two specialty groups by rating this competency as "medium importance" with mean values of 3.31 and 2.98, respectively. Technical teachers rated "high importance" the competency, No. 135 "Recognizing tribal/ethnic/nationality differences among vocational technical students and teachers" (3.55) which was higher than the other three specialty groups.

Research Question 4

What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

There was relatively much variation among the four specialty groups in respect of their performance of the competencies in the Interpersonal Relations
Area. For example, teachers of agriculture rated 10 of the 31 competencies of "very good ability" to perform and 21 of the 31 competencies "good ability" to perform (Table 6). Teachers of commerce on the other hand, rated 2 of the 31 competencies "very good ability," 27 of the 31 competencies "good ability," and 2 of the 31 competencies "fair ability."

Home economics teachers rated 8 of the 31 competencies of "very good ability" to perform, 21 of the 31 competencies of "good ability" to perform, and 2 of the 31 competencies of "fair ability" to perform. By technical teachers, 17 of the 31 competencies were rated as "very good ability" to perform and 14 of the 31 competencies as "good ability" to perform.

On rating the highest in performance competency, teachers of agriculture, commerce, and home economics rated, No. 151 "Treating vocational technical students equally regardless of sex" with mean values of 3.95, 3.76, and 3.90, respectively. In addition, home economics teachers also rated highest in performance the competency, No. 161 "Engaging in vocational technical team teaching without discrimination" (3.90). All the highest rated mean values were in the "very good ability" category rating. Technical teachers rated highest in performance the competency, No. 161 "Engaging in vocational technical team teaching without discrimination" (4.05) which was also in the "very good ability" category rating.

On rating the lowest in performance competency, teachers of agriculture rated No. 144 "Inspiring change in professional habits of vocational technical teachers" (2.96), a "good ability" rating. However, teachers of commerce, home economics, and technical studies rated lowest in performance the competency, No. 136 "Respecting religious preferences and commitments of vocational
technical teachers and students" with mean values of 2.41, 2.43, and 3.00, respectively. Ratings by teachers of commerce and home economics were in the "fair ability" category, whereas technical teachers rating was in the "good ability" category.

Research Question 5

Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?

Of the 31 competencies, all four groups rated the same 10 competencies as a "good ability" to perform and 2 competencies as a "very good ability" to perform. There was much variation in the perceptions of the four specialty groups in regard to their ability to perform in the remaining competencies in the Interpersonal Relations Area. Differences were observed across all four specialty groups. For example, teachers of agriculture rated higher the competencies, No. 138 "Expressing degree of worthiness of teachers and students in general education" (3.54) and No. 137 "Expressing degree of worthiness of other vocational technical teachers and students" (3.51) from the other three specialty groups with mean values in the "very good ability" rating category. Furthermore, teachers of agriculture along with commercial teachers both differed from the other two specialty groups in rating lower the competency: No. 157 "Responding to community needs that are related to vocational technical education" with mean values of 3.40 and 3.32, "good ability" ratings, respectively (Table 6).

Teachers of commerce alone differed from the other three specialty groups in their rating lower the following competencies in the "good ability" category:
No. 139 "Participating in group discussions with vocational technical teachers" (3.46), No. 131 "Expressing honesty in dealing with the feelings and opinions of vocational technical teachers and students" (3.24), No. 145 "Demonstrating a leadership role as a vocational technical teacher" (3.17), and No. 154 "Accepting different family socioeconomic backgrounds of vocational technical students" (2.92).

Commercial teachers along with home economics teachers both differed from the other two specialty groups as they rated lower the competencies: No. 142 "Demonstrating a degree of trust among vocational technical teachers" (3.15 and 3.40, respectively) and No. 134 "Demonstrating self-control in dealing with vocational technical students and teachers" (3.19 and 3.31, respectively).

On rating the competency, No. 135 "Recognizing tribal/ethnic/nationality differences among vocational technical students and teachers," these teachers also differed from the other two specialty groups as they rated lower the competency, "fair ability" with mean values of 2.42 and 2.48, respectively.

Home economics teachers alone rated higher the competency, No. 148 "Sharing concern for lack of student interest in vocational technical education with other teachers" (3.60) as "very good ability" to perform. In addition, home economics teachers along with technical teachers rated higher the competency, No. 133 "Demonstrating professional integrity in relationships with vocational technical teachers and students" as "very good ability" for them to perform with mean values of 3.50 and 3.82, respectively.

Teachers of technical studies alone differed from the other three specialty groups as they rated higher the following competencies: No. 149 "Inspiring vocational technical teachers with positive ideas on vocational technical
education" (3.56), No. 147 "Stimulating vocational technical education teachers through professional discussions" (3.60), No. 159 "Making valid judgments in conducting vocational technical education programs" (3.73), No. 158 "Accomplishing professional responsibilities in a timely manner" (3.61), No. 156 "Adjusting to communicable vocational technical education language of the workplace/climate" (3.65), and No. 140 "Improving the climate to enhance interpersonal relationships among vocational technical teachers" (3.50).

**Competency Area: Program Planning and Development**

**Research Question 6**

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

In expressing their perceptions of the importance of the competencies in the Program Planning and Development competency area, certificate, diploma, and degree teachers were in agreement on 8 of the 15 competencies which they rated as "high" or "very" importance.

On the remaining eight competencies, certificate, diploma, and degree teachers differed in their rating levels of these competencies. These data were reported in Table 7.

The certificate teachers rated the following competencies lower than the diploma and degree teachers: No. 1 "Developing materials for conducting a community survey on needs for a vocational technical education program" (3.00), No. 2 "Outlining activities and procedures for conducting a community survey on needs for a vocational technical education program" (3.38), No. 5
Table 7
Mean Importance and Performance Differences as a Function of the Level of Education of Professional Vocational Technical Education Competencies

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Competency</th>
<th>Importance by Level of Education</th>
<th>Performance by Level of Education</th>
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</thead>
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<tr>
<td></td>
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<td>CER&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Dip&lt;sup&gt;b&lt;/sup&gt;</td>
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<tr>
<td></td>
<td></td>
<td>n=21</td>
<td>n=130</td>
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<tr>
<td>A. Program Planning</td>
<td>1. Developing materials for conducting a community survey on needs for a vocational technical education program.</td>
<td>3.00</td>
<td>4.20</td>
</tr>
<tr>
<td>and Development</td>
<td>2. Outlining activities and procedures for conducting a community survey on needs for a vocational technical education program.</td>
<td>2.38</td>
<td>4.10</td>
</tr>
<tr>
<td></td>
<td>3. Conducting a community survey to identify local employer demands for vocational technical education programs consistent with needs of students, community, and society.</td>
<td>4.14</td>
<td>4.24</td>
</tr>
<tr>
<td></td>
<td>4. Cooperating with a vocational technical education advisory committee in selecting and developing a vocational program that reflects present and future trends of Swaziland’s economy.</td>
<td>4.24</td>
<td>4.42</td>
</tr>
<tr>
<td></td>
<td>5. Explaining the Swaziland Government vocational technical education philosophy/principles/policies.</td>
<td>2.45</td>
<td>3.68</td>
</tr>
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<td></td>
<td>6. Interpreting the Swaziland Industrial and Training Acts.</td>
<td>3.57</td>
<td>3.28</td>
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<td></td>
<td>7. Communicating Swaziland Labor Laws to vocational technical education students.</td>
<td>3.38</td>
<td>3.22</td>
</tr>
<tr>
<td></td>
<td>8. Interpreting national manpower and labor statistics to develop/revise vocational technical education curricula.</td>
<td>3.67</td>
<td>3.62</td>
</tr>
<tr>
<td></td>
<td>9. Determining the Swaziland teachers’ beliefs about vocational education on planning, implementing, and evaluating vocational technical education.</td>
<td>3.76</td>
<td>3.76</td>
</tr>
<tr>
<td></td>
<td>10. Evaluating the influence of Swaziland teachers’ beliefs about vocational technical education on planning, implementing, and evaluating vocational technical education program.</td>
<td>3.90</td>
<td>3.58</td>
</tr>
<tr>
<td></td>
<td>11. Articulating/coordinating the secondary/high school vocational technical education program with the post secondary vocational education centers/institutions, Swaziland College of Technology, and University of Swaziland.</td>
<td>4.48</td>
<td>4.24</td>
</tr>
<tr>
<td></td>
<td>12. Identifying persons to be served by a vocational technical education program.</td>
<td>3.95</td>
<td>3.71</td>
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</table>

(Table continues)
(Table 7)

<table>
<thead>
<tr>
<th>Competency Area</th>
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<th>Performance by Level of Education</th>
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<tr>
<td></td>
<td></td>
<td>CEHP n=21</td>
<td>DIP n=130</td>
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<tr>
<td>13.</td>
<td>Interpreting occupational information and community survey data.</td>
<td>3.19</td>
<td>3.47</td>
</tr>
<tr>
<td>14.</td>
<td>Implementing a vocational technical education program in a rural school environment.</td>
<td>4.33</td>
<td>4.27</td>
</tr>
<tr>
<td>15.</td>
<td>Implementing a vocational technical program in an urban school environment.</td>
<td>3.52</td>
<td>3.78</td>
</tr>
</tbody>
</table>

B. School-Community Relations

| 16.                      | Implementing public relations activities for promoting the field of vocational technical education. | 3.95      | 3.96      | 3.95      | 2.43      | 3.02      | 2.54      |
| 17.                      | Implementing human relations activities for developing parents self-confidence in vocational technical students. | 4.10      | 3.89      | 3.82      | 2.81      | 2.95      | 2.46      |
| 18.                      | Establishing relationships with parents of vocational technical students and understanding student's home conditions. | 3.71      | 4.00      | 3.85      | 2.86      | 3.21      | 2.77      |
| 19.                      | Conducting conferences with parents of vocational technical students at home and school to promote vocational technical education. | 3.29      | 3.82      | 3.44      | 2.38      | 3.09      | 2.46      |
| 20.                      | Assessing conditions in the community where vocational technical students live. | 3.67      | 3.83      | 3.64      | 3.10      | 3.09      | 2.85      |
| 21.                      | Conducting conferences with parents of vocational technical students who are having difficulty with their children's choices of occupations/careers. | 4.10      | 4.13      | 4.15      | 3.05      | 3.23      | 2.79      |

C. School and Business-Industry Relations

| 22.                      | Collaborating with business and industry in planning and conducting vocational technical education program. | 4.38      | 4.26      | 4.93      | 3.19      | 3.24      | 2.87      |
| 23.                      | Conducting a survey of business and industry to determine prospective employer/occupational needs in your teaching/specialty area. | 4.20      | 4.20      | 4.33      | 2.90      | 3.19      | 3.08      |
| 24.                      | Working with business and industry in selecting vocational technical education content in your specialty area. | 4.14      | 4.12      | 4.08      | 2.90      | 3.14      | 3.03      |
| 25.                      | Determining the present and future socioeconomic conditions in the community. | 4.05      | 3.89      | 3.74      | 2.57      | 3.05      | 2.71      |
| 26.                      | Planning internships (cooperative education) with business and industry for vocational technical students. | 3.76      | 3.90      | 4.26      | 2.86      | 2.96      | 2.97      |

(Table continues)
<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Competency</th>
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<th>Performance by Level of Education</th>
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<tbody>
<tr>
<td></td>
<td></td>
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<td>DIP&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n=27</td>
<td>n=150</td>
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<tr>
<td>27.</td>
<td>Developing criteria and procedures for selecting and assigning vocational technical students for internships (cooperative education).</td>
<td>3.71</td>
<td>3.74</td>
</tr>
<tr>
<td>28.</td>
<td>Matching attitudes and interests of vocational technical students to job/internship experience (cooperative education) placement.</td>
<td>3.86</td>
<td>3.97</td>
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<td>29.</td>
<td>Developing a contract agreement with business and industry for vocational technical student internships (cooperative education) experiences.</td>
<td>4.05</td>
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<td>30.</td>
<td>Implementing a system for coordinating the learning experiences of vocational technical education students during their internship (cooperative education) with business and industry.</td>
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<td>31.</td>
<td>Supervising vocational technical student internship experiences (cooperative education) in relationship to expected on-the-job experiences and provide on-site instruction as needed.</td>
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<td>32.</td>
<td>Supervising vocational technical student internship (cooperative education) as a joint responsibility of both the vocational technical teacher and business/industry representatives.</td>
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<td>33.</td>
<td>Updating internship experience (cooperative education) records of vocational technical students.</td>
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<td>Evaluating vocational technical students' internship (cooperative education) experiences with business and industry.</td>
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<td>35.</td>
<td>Instructing students in the principles and practices of internship experiences (cooperative education) in vocational technical education.</td>
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<td>36.</td>
<td>Preparing on-site supervisors who will be working with students in vocational technical education internships.</td>
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<td><strong>D. Curriculum Development</strong></td>
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<td>37.</td>
<td>Assigning in the development of a comprehensive vocational technical education curriculum.</td>
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<td>38.</td>
<td>Revising an existing vocational technical education curriculum.</td>
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<td>39.</td>
<td>Integrating vocational technical education content with the content of general education applicable to the occupational choice of vocational technical students.</td>
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<td>40.</td>
<td>Developing a vocational technical curriculum in own subject major/content area.</td>
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<td>41.</td>
<td>Incorporating instructional content from related fields that has implications for vocational technical education.</td>
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<td>42.</td>
<td>Working with teacher education/training institutions and subject panels to identify competencies for a vocational curriculum in your teaching/specialty area.</td>
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<td>Conducting an occupational/job analysis.</td>
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<td>Selecting vocational technical education content that relates to the specific competencies in an occupational area.</td>
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<td>Reviewing vocational technical curriculum materials to determine quality and relevance of the curriculum content.</td>
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<td>E. Facilities and Equipment</td>
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<td>Compiling a list of vocational technical education consumable supplies needed for the school year.</td>
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<td>Identifying new vocational technical education tools and equipment needed for the school year.</td>
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<td>Preparing a capital outlay budget proposal for vocational technical education program.</td>
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<td>Preparing an operational budget proposal for vocational technical program.</td>
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<td>Preparing purchase requests of vocational technical equipment and supplies for approval.</td>
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<td>51.</td>
<td>Designing a system for determining and collecting student fees for consumable vocational technical education supplies</td>
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<td>Providing data for vocational technical education reports required by the Ministry of Education, Inspectorate division</td>
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<td>F. Planning and Executing Instruction</td>
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<td>63.</td>
<td>Stating vocational technical instructional objectives in student performance terms.</td>
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<td>64.</td>
<td>Classifying vocational technical instructional objectives into cognitive, psychomotor, and affective domains.</td>
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<td>Using audio and visual equipment appropriate for a vocational technical lesson.</td>
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<td>66.</td>
<td>Applying vocational technical education instructional techniques, materials, and learning tools appropriate for the lesson objective.</td>
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<td>4.31</td>
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(Table 7)

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<th>DIP(^b)</th>
<th>DEG(^c)</th>
<th>Performance by Level of Education CER(^a)</th>
<th>DIP(^b)</th>
<th>DEG(^c)</th>
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<td>67.</td>
<td>Identifying sites for field trips that provide learning environments.</td>
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<td>3.58 &amp; 3.44</td>
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<td>68.</td>
<td>Developing opportunities for vocational technical students to observe and analyze a variety of occupational work facilities.</td>
<td>4.05 &amp; 4.13 &amp; 4.05 &amp; 3.14</td>
<td>3.31 &amp; 3.26</td>
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<td>69.</td>
<td>Demonstrating competency in using a variety of teaching methods in vocational technical education such as problem-solving, simulations, discovery, role play, discussion, projects.</td>
<td>4.05 &amp; 4.26 &amp; 4.15 &amp; 3.24</td>
<td>3.50 &amp; 3.40</td>
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<td>70.</td>
<td>Demonstrating ability to communicate to vocational technical students contemporary trends and issues in the content/specialty area.</td>
<td>3.81 &amp; 3.70 &amp; 3.95 &amp; 3.05</td>
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<td>71.</td>
<td>Creating an environment that facilitates learning of vocational/technical subjects.</td>
<td>4.33 &amp; 4.18 &amp; 4.48 &amp; 3.33</td>
<td>3.45 &amp; 3.43</td>
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<td>72.</td>
<td>Sequencing vocational technical instructional units (scheme of work) to enhance student learning.</td>
<td>3.86 &amp; 4.15 &amp; 4.23 &amp; 3.24</td>
<td>3.53 &amp; 3.60</td>
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<td>73.</td>
<td>Adapting instructional activities and materials to enhance achievement of vocational technical education program goals and objectives.</td>
<td>4.19 &amp; 4.02 &amp; 3.87 &amp; 3.10</td>
<td>3.23 &amp; 3.00</td>
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<td>74.</td>
<td>Developing instructional materials and strategies which adequately support vocational technical education programs when such materials are needed.</td>
<td>3.71 &amp; 3.95 &amp; 4.03 &amp; 2.60</td>
<td>3.10 &amp; 3.10</td>
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<td>75.</td>
<td>Incorporating current educational research and development findings on student learning into vocational technical instructional practices.</td>
<td>3.67 &amp; 3.95 &amp; 4.00 &amp; 2.80</td>
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<td>76.</td>
<td>Developing a lesson plan for a vocational instructional unit.</td>
<td>4.10 &amp; 4.05 &amp; 4.20 &amp; 3.24</td>
<td>3.48 &amp; 3.62</td>
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<td>77.</td>
<td>Designing assessment instruments to measure vocational technical students' progress.</td>
<td>4.22 &amp; 4.10 &amp; 4.08 &amp; 3.22</td>
<td>3.43 &amp; 3.25</td>
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<td>78.</td>
<td>Demonstrating identified performance competencies to vocational technical students.</td>
<td>3.61 &amp; 3.70 &amp; 3.68 &amp; 2.89</td>
<td>3.06 &amp; 3.08</td>
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<td>79.</td>
<td>Performing daily vocational technical instructional tasks with minimal supervision.</td>
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<td>2.87 &amp; 3.48</td>
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<td>G. Career Guidance</td>
<td>Discriminating occupational/career information to vocational technical students.</td>
<td>4.10 &amp; 4.10 &amp; 4.20 &amp; 3.14</td>
<td>3.10 &amp; 3.28</td>
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<td></td>
<td>Interpreting occupational/career information to vocational technical students.</td>
<td>4.14 &amp; 4.08 &amp; 4.08 &amp; 3.14</td>
<td>3.23 &amp; 3.15</td>
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(Table continues)
(Table 7)

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<td></td>
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<td>CER*</td>
<td>Dip**</td>
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<tr>
<td>82.</td>
<td>Assessing vocational technical students' aptitude/ability for occupations available in Swaziland.</td>
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<td></td>
<td></td>
<td>4.38</td>
<td>4.21</td>
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<tr>
<td>83.</td>
<td>Providing vocational technical education information to all students.</td>
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<td>4.05</td>
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<tr>
<td>84.</td>
<td>Providing services needed to assist vocational technical students in making the transition from school to employment.</td>
<td>4.05</td>
<td>4.25</td>
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<tr>
<td>85.</td>
<td>Providing services needed to assist vocational technical students in making a transition from secondary/high school vocational technical education to the postsecondary/college/university level.</td>
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<td>4.29</td>
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<tr>
<td>86.</td>
<td>Preparing vocational technical students to transfer vocational technical competencies from one occupation to another.</td>
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<td></td>
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<td>3.48</td>
<td>3.88</td>
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<tr>
<td>87.</td>
<td>Guiding vocational technical students to develop decision-making skills, self-awareness, interpersonal skills, and effective communication with employers/clients.</td>
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<td></td>
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<td>4.43</td>
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<tr>
<td>88.</td>
<td>Directing vocational technical students to relevant literature and agencies outside the school that provide information on specific aspects of different occupations.</td>
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<td>89.</td>
<td>Guiding vocational technical students in discussing their own occupational/career aspirations.</td>
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<td>90.</td>
<td>Conducting home visits to assess vocational technical students' self-employment career opportunities.</td>
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<td>91.</td>
<td>Conducting individual conferences with vocational technical students on career aspirations and job opportunities.</td>
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<td>92.</td>
<td>Conducting group conferences with vocational technical students on career aspirations and job opportunities.</td>
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<td></td>
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<td>93.</td>
<td>Interpreting occupational test results to vocational technical students.</td>
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<td></td>
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<td>3.55</td>
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<td>94.</td>
<td>Establishing communication channels for information exchange and cooperation with career guidance school personnel.</td>
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(Table continues)
### Competency Area

#### Providing career guidance school personnel with vocational technical student performance data.

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#### Collaborating with the Ministry of Education, Educational Testing, Guidance, and Psychological Services for the administration of aptitude tests to vocational technical students.

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#### Guiding vocational technical students in best describing their marketable/salable skills.

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#### Writing letters of recommendation for job/college/university/placement for vocational students.

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#### Instructing vocational technical students in securing and completing applications for jobs, scholarships, or admission to college/university.

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### Student Organization/Club

#### Securing internal and external support for the vocational technical student organization/club.

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#### Integrating vocational technical student organization activities into the vocational technical instructional program.

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#### Explaining objectives and expected outcomes of vocational technical student organization/club.

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#### Establishing a vocational technical student organization/club with a constitution and bylaws.

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#### Recruiting members of the vocational technical student organization/club.

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#### Establishing a vocational technical students organization/club contest awards program.

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#### Preparing vocational technical students to participate in district/regional, national, and international activities and contests.

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#### Guiding vocational technical student organization/club officers in developing a yearly program of activities.

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<td>DIP&lt;sup&gt;b&lt;/sup&gt;</td>
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<td>108.</td>
<td>Advertising the activities of the vocational technical student organization/club.</td>
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<td>109.</td>
<td>Evaluating the outcomes of a vocational technical student organization/club.</td>
<td>3.10</td>
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<td>I. Program Evaluation</td>
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<td>110.</td>
<td>Specifying evaluation techniques and criteria which determine satisfaction of minimum as well as desirable student performance at the completion of the learning activities.</td>
<td>4.05</td>
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<td>111.</td>
<td>Outlining the procedures used to evaluate a vocational technical education program.</td>
<td>3.81</td>
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<td>112.</td>
<td>Conducting a student follow-up evaluation as a part of a vocational technical education program.</td>
<td>3.90</td>
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<td>113.</td>
<td>Using vocational technical evaluation techniques and instruments designed to diagnose vocational technical students' academic, occupational, and social development needs.</td>
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<td>114.</td>
<td>Evaluating vocational technical instruction using a variety of techniques to determine the effectiveness in helping vocational technical students attain occupational goals.</td>
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<td>115.</td>
<td>Establishing criteria for evaluating the appropriateness of the vocational technical education program.</td>
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<td>3.89</td>
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<tr>
<td>116.</td>
<td>Providing constructive input to the inspectorate division of the Ministry of Education in evaluating school vocational technical education programs.</td>
<td>3.87</td>
<td>3.97</td>
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<td>117.</td>
<td>Evaluating relevance of research findings to vocational technical education in Swaziland.</td>
<td>3.75</td>
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<td>118.</td>
<td>Assessing students' performance of competencies as the primary source of evidence of skill acquisition.</td>
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<td>119.</td>
<td>Determining vocational technical students' rates of progress through the vocational technical education program by demonstrated competency rather than by time or course completion.</td>
<td>3.52</td>
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### (Table 7)

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<th>Competency Area</th>
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<td>J. Professional Development</td>
<td>120. Evaluating vocational technical students' interests and abilities to pursue a chosen occupation.</td>
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<td>121. Constructing vocational technical education student evaluation instruments/grade sheets.</td>
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<td>122. Developing a personal teaching style consistent with your belief and the Swaziland government's philosophy/principles of vocational education.</td>
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<td>123. Using appropriate channels to keep up-to-date with professional developments in vocational technical education.</td>
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<td>124. Responding to changing trends within the vocational technical education profession.</td>
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<td>125. Assessing individual/professional growth plans in the vocational technical education profession.</td>
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<td>126. Determining services and activities to be provided by a vocational technical education professional organization.</td>
<td>3.76</td>
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<td>127. Showing respect for individuals in the vocational technical education profession regardless of differences of opinion.</td>
<td>3.67</td>
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<td>128. Supervising specially funded programs/research projects.</td>
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<td>129. Participating in activities designed to update professional competencies in vocational technical education.</td>
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<td>130. Developing skills to conduct research projects in vocational technical education.</td>
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<td>K. Interpersonal Relations</td>
<td>131. Expressing honesty in dealing with the feelings and opinions of vocational technical teachers and students.</td>
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<td>132. Displaying dependability in relationships with vocational technical students and teachers.</td>
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<td>133. Demonstrating professional integrity in relationships with vocational technical teachers and students.</td>
<td>4.43</td>
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<td>134</td>
<td>Demonstrating self-control in dealing with vocational technical students and teachers.</td>
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<td>135</td>
<td>Recognizing tribal/ethnic/nationality differences among vocational technical students and teachers.</td>
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<td>Respecting religious preferences and commitments of vocational technical teachers and students.</td>
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<td>Expressing degree of worthiness of other vocational technical teachers and students in other vocational technical programs.</td>
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<td>138</td>
<td>Expressing degree of worthiness of teachers and students in general education.</td>
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<td>Participating in group discussions with vocational technical teachers.</td>
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<td>Improving the climate to enhance interpersonal relationship among vocational technical teachers.</td>
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<td>Demonstrating behavior worthy of other vocational technical teachers' confidence.</td>
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<td>Demonstrating a degree of trust among vocational technical teachers.</td>
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<td>Exhibiting decision making ability among vocational technical teachers.</td>
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<td>144</td>
<td>Inspiring change in professional habits of vocational technical teachers.</td>
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<td>Demonstrating a leadership role as a vocational technical teacher.</td>
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<td>Handling conflict resolutions among vocational technical education teachers.</td>
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<td>147</td>
<td>Stimulating vocational technical education teachers through professional discussions.</td>
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<td>4.07</td>
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<td>148</td>
<td>Shering concern for lack of student interest in vocational technical education with other teachers.</td>
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<td>149</td>
<td>Inspiring vocational technical teachers with positive ideas on vocational technical education.</td>
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(Table 7)

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<td>Demonstrating sincerity in relationships with vocational technical students.</td>
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<td>Treating vocational technical students equally regardless of sex.</td>
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<td>Expressing sensitivity in relationships in dealing with vocational technical students' performances.</td>
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<td>Acquiring personal habits which are acceptable to vocational technical students.</td>
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<td>Accepting different family socioeconomic backgrounds of vocational technical students.</td>
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<td>155</td>
<td>Communicating sensitivity to vocational technical education students' needs.</td>
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<td>Adjusting to communicable vocational technical education language of the workplace/climate.</td>
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<td>157</td>
<td>Responding to community needs that are related to vocational technical education.</td>
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<td>158</td>
<td>Accomplishing professional responsibilities in a timely manner.</td>
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<td>Making valid judgments in conducting vocational technical education programs.</td>
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<td>Displaying open-mindedness in handling vocational technical personnel situations.</td>
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<td>161</td>
<td>Engaging in vocational technical team teaching without discrimination.</td>
<td>4.45</td>
<td>4.40</td>
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</table>

aCertificate  
bDiploma  
cDegree  

Importance Scale: 5=very high importance; 4=high importance; 3=medium importance; 2=low importance; 1=very low importance; 0=no importance  
Performance Scale: 5=excellent ability to perform; 4=very good ability to perform; 3=good ability to perform; 2=fair ability to perform; 1=poor ability to perform; 0=no ability to perform  
*__Represents means that are in a different category rating from the mean ratings by other specialty groups.*
"Explaining the Swaziland Government vocational technical education philosophy/principles/policies" (3.45) all "medium importance" ratings; while No. 6 "Interpreting the Swaziland Industrial and Training Acts" was rated higher with a 3.57 rating.

The degree teachers, differing from the certificate and diploma teachers, were the only respondents in the competency area of Program Planning and Development with a "very high importance" rating for No. 3 "Conducting a community survey to identify local employer demands for vocational technical education programs consistent with needs of students, community, and society" (4.50). In expressing their perceived importance of the competencies, the degree teachers again differed from certificate and diploma teachers as they rated higher the competencies: No. 7 "Communicating Swaziland Labor Laws to vocational technical education students" (3.53) and No. 13 "Interpreting occupational information and community survey data" (3.80). However, degree teachers rated "medium importance" the competency, No 8 "Interpreting national manpower and labor statistics to develop/revise vocational technical education curricula" with a mean of 3.45, lower than certificate and diploma teachers.

**Research Question 7**

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

On 8 of the 15 competencies in the Program Planning and Development competency area, certificate, diploma, and degree teachers were in agreement
on their abilities to perform the competencies. These competencies fell in the "good ability" category rating (Table 7).

The certificate teachers differed from the diploma and degree teachers when they rated lower the competency, No. 13 "Interpreting occupational information and community survey data" (2.29). On the other hand, diploma teachers also differed from the certificate and degree teachers by rating "good ability" the competency, No. 5 "Explaining the Swaziland Government vocational technical education philosophy/principles/policies" (2.73), while certificate and degree teachers rated it as a "fair ability."

On three competencies, the degree teachers differed from the certificate and diploma teachers on rating "fair ability" the following competencies: No. 8 "Interpreting national manpower and labor statistics to develop/revise vocational technical education curricula" (2.25), No. 9 "Determining the Swaziland teachers' beliefs about vocational education on planning, implementing, and evaluating vocational technical education" (2.48), and No. 10 "Evaluating the influence of Swaziland teachers' beliefs about vocational technical education on planning, implementing, and evaluating vocational technical education program" (2.45). The certificate and diploma teachers had rated these competencies as a "good ability" to perform.
Research Question 6

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

Of the six competencies in the School Community Relations competency area, certificate, diploma, and degree teachers were in agreement on five of the competencies in terms of their perceived importance. These five competencies were all in the "high importance" category rating. It was the diploma teachers who differed from the certificate and degree teachers when rating higher the competency, No. 19 "Conducting conferences with parents of vocational technical students at home and school to promote vocational technical education" (3.82). The certificate and degree teachers rated their perceived importance of this competency as "medium importance." These data were reported in Table 7.

Research Question 7

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

Perceived ability to perform the competencies in the School Community Relations area by certificate, diploma, and degree teachers reflected no differences on three of the six competencies. The differences in perceived ability were observed with each of the three groups on the remaining three competencies. First, certificate teachers differed from the diploma and degree teachers on rating lower their performance of the competency, No. 16
"Implementing public relations activities for promoting the field of vocational technical education" (2.43), a "fair ability." Second, diploma teachers perceived their ability to perform the competency. No. 19 "Conducting conferences with parents of vocational technical students at home and school to promote vocational technical education" (3.09) as "good ability" a higher rating than certificate and degree teachers. And third, the degree teachers perceived their ability to perform the competency, No. 17 "Implementing human relations activities for developing parents self-confidence in vocational technical students" (2.46) as "fair ability," hence, differed from certificate and diploma teachers whose rating was "good ability" (Table 7).

**Competency Area: School and Business – Industry Relations**

**Research Question 6**

Do differences exist in the perceived self-reported importance of each of the professional vocational technical education competencies as a function of the level of education?

In expressing their perceived importance of the competencies in the area of School and Business – Industry Relations, certificate, diploma, and degree teachers were in full agreement in respect of the magnitude of importance of the 15 competencies. All 15 competencies were rated as of "high importance."
Research Question 7

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

Certificate, diploma, and degree teachers were in agreement on 14 of the 15 competencies in regard to a "good ability" to perform the School and Business - Industry Relations competencies. The one competency on which they differed was, No. 36 "Preparing on-site supervisors who will be working with students in vocational technical education internships" (2.43) which was rated as "fair ability" to perform by certificate teachers while diploma and degree teachers rated themselves as "good ability" to perform. These data were shown in Table 7.

Competency Area: Curriculum Development

Research Question 6

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

Certificate, diploma, and degree teachers shared similar perceptions in regard to the importance of eight of the nine competencies in the Curriculum Development competency area. The eight competencies were rated as "high" or "very high" in importance. However, on two competency ratings, certificate teachers differed from the diploma and degree teachers, namely: No. 41 "Incorporating instructional content from related fields that has implications for vocational technical education" (3.33), a "medium importance" rating, and No. 42 "Working with teacher education/training institutions and subject panels to
identify competencies for a vocational curriculum in your teaching/specialty area" (4.62), a "very high importance" rating. The diploma and degree teachers rated these two competencies as "high importance."

**Research Question 7**

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

On two of the nine competencies certificate teachers differed from diploma and degree teachers in regard to their abilities to perform the competencies in the Curriculum Development competency area. Certificate teachers rated the following competencies rather differently: No. 41 "Incorporating instructional content from related fields that has implications for vocational technical education" (2.48), and No. 42 "Working with teacher education/training institutions and subject panels to identify competencies for a vocational curriculum in your teaching/specialty area" (3.62). The two competency ratings fell in the "fair ability" and "very good ability" categories, respectively. The diploma and degree teachers' ratings of these two competencies fell in the "good ability" to perform category. These data were reported in Table 7.
Competency Area: Facilities and Equipment

Research Question 6

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

In the Facilities and Equipment competency area of 17 competencies, certificate, diploma, and degree teachers were in agreement on 16 of the 17 competencies which were rated as "high" or "very high" in importance. Certificate teachers differed in rating the competencies: No. 56 "Designing a system for repairing and servicing vocational technical education tools and equipment" (4.57), a "very high importance" rating, and No. 61 "Formulating a policy for use of the vocational technical education facilities and equipment by other school personnel and groups outside the school" (3.43), a "medium importance" rating. Diploma and degree teachers had rated the same competencies as "high importance."

The diploma teachers rated "high importance" the competencies: No. 53 "Providing safety measures for vocational technical education students using hazardous equipment/materials" (4.43), and No. 57 "Providing for the storage and security of vocational technical education tools and equipment" (4.37). On the other hand, the certificate and degree teachers rated the same competencies as of "very high importance" (See Table 7).
Research Question 7

Do differences exist in the perceived self-reported ability to perform each of the processional vocational technical education competencies as a function of the level of education?

The certificate, diploma, and degree teachers, on rating the 17 competencies in terms of their ability to perform them, agreed on 10 competencies on which they indicated their ability to perform as "good ability." As they differed in rating the remaining 7 competencies, certificate teachers differed from the diploma and degree teachers in rating the competencies: No. 55 "Maintaining an inventory of vocational technical education tools, supplies, and equipment" (3.00), a "good ability" rating, and No. 60 "Arranging layout of the vocational technical education laboratory/workshop to simulate the occupational workplace environment" (3.52), a "very good ability" rating. The mean ratings of the same competencies by the diploma and degree teachers were in the "very good ability" category for the former competency, and "good ability" in the latter competency.

The diploma teachers differed from the certificate and degree teachers in rating higher the following competencies: No. 46 "Compiling a list of vocational technical education consumable supplies needed for the school year" (3.50), No. 53 "Providing safety measures for vocational technical education students using hazardous equipment/materials" (3.63), No. 57 "Providing for the storage and security of vocational technical education tools and equipment" (3.57), and, No. 59 "Directing students in a system for cleaning and maintaining the vocational technical education laboratory/workshop" (3.50), all falling in the "very good ability" category rating. Finally, in this competency area of Facilities and Equipment, degree teachers differed from the certificate and diploma
teachers in rating higher their performance in respect of the competency, No. 48 "Preparing a capital outlay budget proposal for vocational technical education program" (3.53), a "very good ability" rating (Table 7).

**Competency Area: Planning and Executing Instruction**

**Research Question 6**

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

Of the 17 competencies in the Planning and Executing Instruction competency area, there were 16 competencies on which the certificate, diploma, and degree teachers were in agreement that were rated as "high" or "very high" in importance.

The differences in perception between certificate teachers and diploma and degree teachers were in respect of the following competencies: No. 65 "Using audio and visual equipment appropriate for a vocational technical lesson" (4.57), a "very high importance" rating, No. 66 "Applying vocational technical education instructional techniques, materials, and learning tools appropriate for the lesson objective" (4.52), a "very high importance" rating, No. 67 "Identifying sites for field trips that provide learning environments" (4.50), a "very high importance" rating, and No. 79 "Performing daily vocational technical instructional tasks with minimal supervision" (3.12), a "medium importance" rating. The diploma and degree teachers rated all four competencies as "high importance."

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Research Question 7

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

On the 17 competencies of the Planning and Executing Instruction competency area, certificate, diploma, and degree teachers were in agreement on 10 of the competencies as to their level of ability to perform them. All 10 competencies were rated as a "good ability" to perform.

The differences among the three groups of teachers were described in the next paragraphs. Certificate teachers on rating the competency, No. 72 "Sequencing vocational technical instructional units (scheme of work) to enhance student learning" (3.24) differed from diploma and degree teachers with a "good ability" rating while the others had a "very good ability" to perform rating.

Diploma teachers, differing from certificate and degree teachers, rated higher the following two competencies as "very good ability" to perform: No. 63 "Stating vocational technical instructional objectives in student performance terms" (3.50), and No. 69 "Demonstrating competency in using a variety of teaching methods in vocational technical education such as problem-solving, simulations, discovery, role play, discussion, projects" (3.50).

The competencies on which degree teachers perceived their ability to perform in a manner different from the certificate and diploma teachers were: No. 65 "Using audio and visual equipment appropriate for a vocational technical lesson" (3.33), No. 66 "Applying vocational technical education instructional techniques, materials, and learning tools appropriate for the lesson objective" (3.38), No. 67 "Identifying sites for field trips that provide learning
environments" (3.44), and No. 76 "Developing a lesson plan for a vocational instructional unit" (3.63). The first three competencies were rated "good ability" and the fourth competency "very good ability" to perform, while certificate and diploma teachers' ratings of the same competencies were in the "very good ability" and "fair ability" category ratings, respectively. These data were reported in Table 7.

**Competency Area: Career Guidance**

**Research Question 6**

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

In the Career Guidance competency area of 20 competencies, certificate, diploma, and degree teachers were in full agreement on 19 of the 20 competencies in regard to their perceived importance. All 19 competencies were rated "high" or "very high" in importance by all three groups of teachers.

Differences in perceived importance were noted with two competencies as rated by certificate and diploma teachers. Certificate teachers differed from the diploma and degree teachers on rating "medium importance" the competency, No. 91 "Conducting individual conferences with vocational technical students on career aspirations and job opportunities" (3.29), while the diploma and degree teachers' ratings were in the "high importance" category. In respect of the diploma teachers, they differed from the certificate and degree teachers as they rated "high importance" the competency, No. 86 "Preparing vocational technical students to transfer vocational technical competencies from one
occupation to another" (3.88). The certificate and degree teachers in turn rated this competency as "medium importance." These data were recorded in Table 7.

**Research Question 7**

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

On perceived abilities to perform the 20 competencies in the Career Guidance competency area, certificate, diploma, and degree teachers were in agreement on 17 of the 20 competencies with the 17 competencies rated as "good ability" to perform. The certificate teachers differed from the diploma and degree teachers in rating "very good ability" the competency, No. 87 "Guiding vocational technical students to develop decision making skills, self-awareness, interpersonal skills, and effective communication with employers/clients" (3.57). Diploma and degree teachers on the other hand, rated the same competency as "good ability" to perform.

Degree teachers, differing from certificate and diploma teachers, rated their perceived abilities to perform the following competencies as "good ability": No. 86 "Preparing vocational technical students to transfer vocational technical competencies from one occupation to another" (2.45), and No. 90 "Conducting home visitations to assess vocational technical students' self-employment career opportunities" (2.48). The mean ratings of the same competencies by the certificate and diploma teachers were in the "good ability" to perform category.
Competency Area: Student Organization/Club

Research Question 6

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

There was less agreement among certificate, diploma, and degree teachers on the perceived importance of the competencies in the Student Organization/Club competency area. Of the 10 competencies in this competency area, the three groups were in agreement on 1 competency which they all rated "high importance" (Table 7).

Diploma teachers, differing from certificate and degree teachers rated "high importance" the following competencies: No. 103 "Establishing a vocational technical student organization/club with a constitution and by-laws" (3.77), No. 105 "Establishing a vocational technical student organization/club contest awards program" (3.74), No. 107 "Guiding vocational technical student organization/club officers in developing a yearly program of activities" (3.77), and No. 109 "Evaluating the outcomes of a vocational technical student organization/club" (3.78). The mean perceived importance ratings on these four competencies by the certificate and degree teachers fell in the "medium importance" category rating.

Degree teachers differed from the certificate and diploma teachers on rating "medium importance" the following competencies: No. 100 "Securing internal and external support for the vocational technical student organization/club" (3.48), No. 101 "Integrating vocational technical student organization activities into the vocational technical instructional program" (3.35),
No. 102 "Explaining objectives and expected outcomes of vocational technical student organization/club" (3.40), and No. 108 "Advertising the activities of the vocational technical student organization/club" (3.13). The mean ratings on these competencies by certificate and diploma teachers fell in the "high importance" category, hence, the difference in perception. Furthermore, the degree teachers also differed from certificate and diploma teachers on rating "low importance" the competency, No. 104 "Recruiting members of the vocational technical student organization/club" (2.46). To the contrary, certificate and diploma teachers rated the same competency as "medium importance."

Research Question 7

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

There was less agreement on the perceived abilities to perform the Student Organization/Club competencies among the certificate, diploma, and degree teachers in this competency area. For instance, the three groups of teachers were in agreement on 3 of the 10 competencies rating their performance of them as "good ability." Certificate teachers, as they differed from the diploma and degree teachers, rated lower their abilities to perform the following competencies: No. 100 "Securing internal and external support for the vocational technical student organization/club" (2.43), No. 101 "Integrating vocational technical student organization activities into the vocational technical instructional program" (2.24), No. 105 "Establishing a vocational technical students organization/club contest awards program" (2.19), No. 107 "Guiding
vocational technical student organization/club officers in developing a yearly program of activities" (2.48), and No. 109 "Evaluating the outcomes of a vocational technical student organization/club" (2.24).

A difference in perceived abilities between diploma teachers and certificate and degree teachers was with "good ability" ratings of the competencies: No. 103 "Establishing a vocational technical student organization/club with a constitution and by-laws" (2.92), and No. 104 "Recruiting members of the vocational technical student organization/club" (2.74). The certificate and degree teachers, on the other hand, rated their abilities to perform these competencies as "fair."

**Competency Area: Program Evaluation**

**Research Question 6**

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

There was total agreement among the certificate, diploma, and degree teachers on the perceived importance of the 12 competencies of the Program Evaluation competency area. All 12 competencies were rated as "high importance" by all three groups. These data were reported in Table 7.
Research Question 7

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

Among the certificate, diploma, and degree teachers there was much agreement on their perceived abilities to perform the competencies in the Program Evaluation. The three groups of teachers were in agreement on 11 of the 12 competencies by rating their abilities to perform them as "good." The one mean rating that differed was reported by certificate teachers rating of the competency, No. 121 "Constructing vocational technical education student evaluation instruments/grade sheets" (2.48), a "fair ability" category rating. To the contrary, diploma and degree teachers' rating of the same competency fell in the "good ability" rating category.

Competency Area: Professional Development

Research Question 6

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

On all nine competencies in the Professional Development area, certificate, diploma, and degree teachers were in full agreement on the extent of the importance of the competencies. All nine competencies were rated "high importance." These data were reported in Table 7.
Research Question 7

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

Of the nine competencies in the Professional Development area, certificate, diploma, and degree teachers were in agreement on eight of the nine competencies insofar as their level of abilities to perform the competencies. They rated their abilities to perform these competencies as "good." A difference of perception was reported by diploma teachers when they rated "good ability" to perform the competency, No. 129 "Participating in activities designed to update professional competencies in vocational technical education" (3.58). On the other hand, certificate and degree teachers rated their ability to perform the competency as "good."

Competency Area: Interpersonal Relations

Research Question 6

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

Of the 31 competencies, all three groups of teachers, namely, certificate, diploma, and degree teachers, were in full agreement on 26 competencies insofar as the perceived level of importance was concerned with ratings in the "high importance" category. Much of the differences were between the certificate teachers and the diploma and degree teachers. For instance, certificate teachers differed from the diploma and degree teachers by rating higher the following: No. 135 "Recognizing tribal/ethnic/nationality differences
among vocational technical students and teachers" (3.71), a "high importance" rating, No. 144 "Inspiring change in professional habits of vocational technical teachers" (3.00), No. 152 "Expressing sensitiveness in relationships in dealing with vocational technical students' performance" (3.45), and No. 153 "Acquiring personal habits which are acceptable to vocational technical students" (3.45), were all rated as "medium importance" while mean ratings of these competencies by the diploma and degree teachers were in the categories of "high importance" (Table 7).

On one competency in the Interpersonal Relations competency area, diploma teachers differed from the certificate and degree teachers in the perceived importance rating of No. 136 "Respecting religious preferences and commitments of vocational technical teachers and students" (3.40), a "medium importance" rating. The mean importance ratings by the certificate and degree teachers of the same competency were in the "high importance" category.

**Research Question 7**

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

Of the 31 competencies, there was agreement on 22 competencies insofar as their abilities to perform them with a "good ability." Differences in the performance of the 9 competencies were noted with each of the three groups.

Certificate teachers differing from the diploma and degree teachers rated lower their abilities to perform the competencies: No. 131 "Expressing honesty in dealing with the feelings and opinions of vocational technical teachers and students" (3.33), and No. 161 "Engaging in vocational technical team teaching
without discrimination" (3.45), with "good ability" ratings. No. 148 "Sharing concern for lack of student interest in vocational technical education with other teachers" (3.60), was rated with a "very good ability" rating; while diploma and degree teachers rated the same competency with a "good ability."

Diploma teachers also differed from the certificate and degree teachers on rating their abilities to perform the following competencies: No. 142 "Demonstrating a degree of trust among vocational technical teachers" (3.40), a "good ability" rating; No. 145 "Demonstrating a leadership role as a vocational technical teacher" (3.58); a "very good ability" rating; and No. 157 "Responding to community needs that are related to vocational technical education" (3.59), a "very good ability" rating. The certificate and degree teachers, on the other hand, rated their ability to perform the same competencies as "very good ability," and "good ability," respectively.

The degree teachers who also differed rated "very good ability" the competencies: No. 133 "Demonstrating professional integrity in relationships with vocational technical teachers and students" (3.60), No. 134 "Demonstrating self-control in dealing with vocational technical students and teachers" (3.50), and No. 154 "Accepting different family socioeconomic backgrounds of vocational technical students" (3.53). The certificate and diploma teachers on the other hand had rated the same competencies as "good ability."
Competency Area: Program Planning and Development

Research Question 8

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

On 13 of the 15 competencies in the area of Program Planning and Development, 1 to 5 years, 6 to 10 years, and 11 and above years of teaching experience teachers showed no difference of perceptions in the "high importance" of the competencies. Differences in the perceived importance of the competencies as a function of years of teaching experience were noted in respect of two competencies as shown in Table 8. Teachers with 11 and above years of teaching experience rated the competency, No. 5 "Explaining the Swaziland Government vocational technical education philosophy/principles/policies" (3.43), "medium importance" whereas 1 to 5 years and 6 to 10 years of teaching experience rated the same competency as of "high importance." The competency, No. 13 "Interpreting occupational information and community survey data" (3.03) was also rated "medium importance" by teachers with 11 and above years of teaching experience while the other groups rated it as "high importance." These data were reported in Table 8.
Table 8

Mean Importance and Performance Differences as a Function of Years of Teaching Experience of Professional Vocational Technical Education Competencies

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Competency</th>
<th>1 to 5 (n=100)</th>
<th>6 to 70 (n=53)</th>
<th>11 and Above (n=38)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Program Planning and Development</td>
<td>1. Developing materials for conducting a community survey on needs for a vocational technical education program.</td>
<td>4.20 x̄ 3.05</td>
<td>4.23 x̄ 3.02</td>
<td>4.08 x̄ 3.14</td>
</tr>
<tr>
<td></td>
<td>2. Outlining activities and procedures for conducting a community survey on needs for a vocational technical education program.</td>
<td>4.04 x̄ 3.10</td>
<td>3.96 x̄ 3.02</td>
<td>3.97 x̄ 2.90</td>
</tr>
<tr>
<td></td>
<td>3. Conducting a community survey to identify local employer demands for vocational technical education programs consistent with needs of students, community, and society.</td>
<td>4.20 x̄ 3.17</td>
<td>4.36 x̄ 3.28</td>
<td>4.39 x̄ 3.16</td>
</tr>
<tr>
<td></td>
<td>4. Cooperating with a vocational technical education advisory committee in selecting and developing a vocational program that reflects present and future trends of Swaziland’s economy.</td>
<td>4.30 x̄ 3.26</td>
<td>4.43 x̄ 3.26</td>
<td>4.37 x̄ 3.47</td>
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<tr>
<td></td>
<td>5. Explaining the Swaziland Government vocational technical education philosophy/principles/policies.</td>
<td>3.76 x̄ 2.76</td>
<td>3.75 x̄ 2.45</td>
<td>3.43 x̄ 2.45</td>
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<td></td>
<td>6. Interpreting the Swaziland Industrial and Training Acts.</td>
<td>3.28 x̄ 2.34</td>
<td>3.30 x̄ 2.23</td>
<td>3.18 x̄ 2.13</td>
</tr>
<tr>
<td></td>
<td>7. Communicating Swaziland Labor Laws to vocational technical education students</td>
<td>3.30 x̄ 2.27</td>
<td>3.26 x̄ 2.34</td>
<td>3.34 x̄ 2.03</td>
</tr>
<tr>
<td></td>
<td>8. Interpreting national manpower and labor statistics to develop/revise vocational technical education curricula.</td>
<td>3.52 x̄ 2.52</td>
<td>3.78 x̄ 2.55</td>
<td>3.50 x̄ 2.58</td>
</tr>
<tr>
<td></td>
<td>9. Determining the Swaziland teachers’ beliefs about vocational education on planning, implementing, and evaluating vocational technical education.</td>
<td>3.74 x̄ 2.84</td>
<td>3.83 x̄ 2.74</td>
<td>3.89 x̄ 2.58</td>
</tr>
<tr>
<td></td>
<td>10. Evaluating the influence of Swaziland teachers’ beliefs about vocational technical education on planning, implementing, and evaluating vocational technical education program.</td>
<td>3.55 x̄ 2.75</td>
<td>3.87 x̄ 2.68</td>
<td>3.74 x̄ 2.79</td>
</tr>
</tbody>
</table>

(Table continues)
(Table 8)

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Competency</th>
<th>Years of Teaching Experience</th>
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<tbody>
<tr>
<td></td>
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<td>1 to 5, 110, 90</td>
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<td>11. Articulating/Coordinating the secondary/high school vocational technical</td>
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<td>education program with the post secondary vocational education</td>
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<td></td>
<td>centers/institutions, Swaziland College of Technology, and University of</td>
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<td></td>
<td></td>
<td>Swaziland.</td>
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<td>12. Identifying persons to be served by a vocational technical education</td>
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<td></td>
<td></td>
<td>program.</td>
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<td></td>
<td></td>
<td>13. Interpreting occupational information and community survey data.</td>
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<td></td>
<td>14. Implementing a vocational technical education program in a rural school</td>
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<td></td>
<td></td>
<td>environment.</td>
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<td></td>
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<td>15. Implementing a vocational technical program in an urban school</td>
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<td></td>
<td></td>
<td>environment.</td>
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<tr>
<td>B. School</td>
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<tr>
<td>Community</td>
<td></td>
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<tr>
<td>Relations</td>
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<td>16. Implementing public relations activities for promoting the field of</td>
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<td></td>
<td>vocational technical education.</td>
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<td></td>
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<td>17. Implementing human relations activities for developing parents self-</td>
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<td>confidence in vocational technical students.</td>
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<td></td>
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<td>18. Establishing relationships with parents of vocational technical</td>
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<td></td>
<td></td>
<td>students and understanding students' home conditions.</td>
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<td>19. Conducting conferences with parents of vocational technical students</td>
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<td>at home and school to promote vocational technical education.</td>
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<td>20. Assessing conditions in the community where vocational technical</td>
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<td></td>
<td></td>
<td>students live.</td>
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<td></td>
<td></td>
<td>21. Conducting conferences with parents of vocational technical students</td>
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<td></td>
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<td>who are having difficulty with their children's choices of occupations/careers.</td>
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</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Competency</th>
<th>Years of Teaching Experience</th>
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<td>1 to 5 ($n=100$)</td>
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<td></td>
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<td>Imp $^a$ Perf $^b$ Imp $^c$</td>
</tr>
<tr>
<td>C. School and Business Industry Relations</td>
<td>22. Collaborating with business and industry in planning and conducting vocational technical education program.</td>
<td>4.25 3.15</td>
</tr>
<tr>
<td></td>
<td>23. Conducting a survey of business and industry to determine prospective employer/occupational needs in your teaching/specialty area.</td>
<td>4.14 3.13</td>
</tr>
<tr>
<td></td>
<td>24. Working with business and industry in selecting vocational technical education content in your specialty area.</td>
<td>4.01 3.07</td>
</tr>
<tr>
<td></td>
<td>25. Determining the present and future socioeconomic conditions in the community.</td>
<td>3.79 2.99</td>
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<td></td>
<td>26. Planning internships (cooperative education) with business and industry for vocational technical students.</td>
<td>3.92 2.93</td>
</tr>
<tr>
<td></td>
<td>27. Developing criteria and procedures for selecting and assigning vocational technical students for internships (cooperative education).</td>
<td>3.68 2.68</td>
</tr>
<tr>
<td></td>
<td>28. Matching attitudes and interests of vocational technical students to job/internship experience (cooperative education) placement.</td>
<td>3.79 2.97</td>
</tr>
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<td>29. Developing a contract agreement with business and industry for vocational technical student internships (cooperative education) experiences.</td>
<td>3.90 2.88</td>
</tr>
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<td>30. Implementing a system for coordinating the learning experiences of vocational technical education students during their internship (cooperative education) with business and industry.</td>
<td>3.79 2.77</td>
</tr>
<tr>
<td></td>
<td>31. Supervising vocational technical student internship experiences (cooperative education) in relationship to expected on-the-job experiences and provide on-site instruction as needed.</td>
<td>3.87 2.92</td>
</tr>
<tr>
<td></td>
<td>32. Supervising vocational technical student internship (cooperative education) as a joint responsibility of both the vocational technical teacher and business/industry representatives.</td>
<td>3.77 2.75</td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Competency</th>
<th>Years of Teaching Experience</th>
<th>1 to 5</th>
<th>6 to 10</th>
<th>11 and Above</th>
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<td>n=100</td>
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<td>n=53</td>
<td>Imp</td>
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<td>n=38</td>
<td>Imp</td>
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<td>Imp</td>
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<td><strong>Table 5</strong></td>
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<td><strong>Competency</strong></td>
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<tr>
<td>33.</td>
<td>Updating internship experience (cooperative education) records of vocational technical students.</td>
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<td></td>
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<td>3.48</td>
<td>2.65</td>
<td>3.79</td>
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<tr>
<td>34.</td>
<td>Evaluating vocational technical students' internship (cooperative education) experiences with business and industry.</td>
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<td>3.70</td>
<td>2.85</td>
<td>3.89</td>
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<tr>
<td>35.</td>
<td>Instructing students in the principles and practices of internship experiences (cooperative education) in vocational technical education.</td>
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<td>3.53</td>
<td>2.70</td>
<td>3.80</td>
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<tr>
<td>36.</td>
<td>Preparing on-site supervisors who will be working with students in vocational technical education internships.</td>
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<td></td>
<td></td>
<td></td>
<td>3.93</td>
<td>3.06</td>
<td>3.94</td>
</tr>
<tr>
<td><strong>D. Curriculum Development</strong></td>
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<td>37.</td>
<td>Assisting in the development of a comprehensive vocational technical education curriculum.</td>
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<td>3.62</td>
<td>2.52</td>
<td>4.00</td>
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<tr>
<td>38.</td>
<td>Revising an existing vocational technical education curriculum.</td>
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<td>4.10</td>
<td>3.07</td>
<td>4.36</td>
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<tr>
<td>39.</td>
<td>Integrating vocational technical education content with the content of general education applicable to the occupational choice of vocational technical student.</td>
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<td></td>
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<td>3.75</td>
<td>2.75</td>
<td>3.94</td>
</tr>
<tr>
<td>40.</td>
<td>Developing a vocational technical curriculum in own subject matter/content areas.</td>
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<td></td>
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<td>3.77</td>
<td>2.96</td>
<td>4.08</td>
</tr>
<tr>
<td>41.</td>
<td>Incorporating instructional content from related fields that has implications for vocational technical education.</td>
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<td></td>
<td>3.68</td>
<td>2.65</td>
<td>3.85</td>
</tr>
<tr>
<td>42.</td>
<td>Working with teacher education/training institutions and subject panels to identify competencies for a vocational curriculum in your teaching/specialty area.</td>
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<td></td>
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<td>4.31</td>
<td>3.40</td>
<td>4.43</td>
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<tr>
<td>43.</td>
<td>Conducting an occupational/job analysis.</td>
<td></td>
<td>3.76</td>
<td>2.94</td>
<td>3.98</td>
</tr>
</tbody>
</table>

(Table continues)
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<thead>
<tr>
<th>Competency Area</th>
<th>Competency</th>
<th>Years of Teaching Experience</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>1 to 5 (n=100)</td>
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<tr>
<td></td>
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<td>Imp $\bar{x}$</td>
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<tr>
<td>44.</td>
<td>Selecting vocational technical education content that relates to the specific competencies in an occupational area.</td>
<td>3.81</td>
</tr>
<tr>
<td>45.</td>
<td>Reviewing vocational technical curriculum materials to determine quality and relevance of the curriculum content.</td>
<td>4.26</td>
</tr>
<tr>
<td>E. Facilities and Equipment</td>
<td>46. Compiling a list of vocational technical education consumable supplies needed for the school year.</td>
<td>4.13</td>
</tr>
<tr>
<td></td>
<td>47. Identifying new vocational technical education tools and equipment needed for the school year.</td>
<td>4.06</td>
</tr>
<tr>
<td></td>
<td>48. Preparing a capital outlay budget proposal for vocational technical education program.</td>
<td>4.21</td>
</tr>
<tr>
<td></td>
<td>49. Preparing an operational budget proposal for vocational technical program.</td>
<td>4.05</td>
</tr>
<tr>
<td></td>
<td>50. Preparing purchase requests of vocational technical equipment and supplies for approval.</td>
<td>3.84</td>
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<td>51. Designing a system for determining and collecting student fees for consumable vocational technical education supplies.</td>
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<td>52. Providing data for vocational technical education reports required by the Ministry of Education, Inspectorate division.</td>
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<td>53. Providing safety measures for vocational technical education students using hazardous equipment/materials.</td>
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<td>54. Formulating with students acceptable standards of behavior in vocational technical education classrooms and laboratories/workshops.</td>
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<td>55. Maintaining an inventory of vocational technical education tools, supplies, and equipment.</td>
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<tr>
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<td>Demonstrating competency in using a variety of teaching methods in vocational technical education such as problem-solving, simulations, discovery, role play, discussion, projects.</td>
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<td>Creating an environment that facilitates learning of vocational technical subjects.</td>
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<td>Sequencing vocational technical instructional units (scheme of work) to enhance student learning.</td>
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<td>Adapting instructional activities and materials to enhance achievement of vocational technical education program goals and objectives.</td>
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<td>Developing instructional materials and strategies which adequately support vocational technical education programs when such materials are needed.</td>
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<td>Designing assessment instruments to measure vocational technical students' progress.</td>
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<td>Performing daily vocational technical instructional tasks with minimal supervision.</td>
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<td>Disseminating occupational/career information to vocational technical students.</td>
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<td>Interpreting occupational/career information to vocational technical students.</td>
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<td>82. Assessing vocational technical students' aptitude/ability for occupations</td>
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<td>the transition from school to employment.</td>
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<td>85. Providing services needed to assist vocational technical students in making</td>
<td>a transition from secondary/high school vocational technical education to the</td>
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<td>86. Preparing vocational technical students to transfer vocational technical</td>
<td>competencies from one occupation to another.</td>
<td>3.59 2.75</td>
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<td>87. Guiding vocational technical students to develop decision making skills,</td>
<td>self-awareness, interpersonal skills, and effective communication with</td>
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<td>88. Directing vocational technical students to relevant literature and agencies</td>
<td>outside the school that provide information on specific aspects of different</td>
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<td>89. Guiding vocational technical students in discussing their own</td>
<td>occupational/career aspirations.</td>
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<td>90. Conducting home visitations to assess vocational technical students' self-</td>
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<td>91. Conducting individual conferences with vocational technical students on</td>
<td>career aspirations and job opportunities.</td>
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<td>92. Conducting group conferences with vocational technical students on career</td>
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<td>94.</td>
<td>Establishing communication channels for information exchange and cooperation with career guidance school personnel.</td>
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<td>Providing career guidance school personnel with vocational technical student performance data.</td>
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<td>Collaborating with the Ministry of Education, Educational Testing, Guidance, and Psychological Services for the administration of aptitude tests to vocational technical students.</td>
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<td>97.</td>
<td>Guiding vocational technical students in best describing their marketable/salable skills.</td>
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<td>Writing letters of recommendation for job/college/university/placement for vocational students.</td>
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<td>Instructing vocational technical students in securing and completing applications for jobs, scholarships, or admission to college/university.</td>
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<td>H. Student Organiza-</td>
<td>Securing internal and external support for the vocational technical student organization/club.</td>
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<td>tion/Club</td>
<td>101. Integrating vocational technical student organization activities into the vocational technical instructional program.</td>
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<td>102. Explaining objectives and expected outcomes of vocational technical student organization/club</td>
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<td>103. Establishing a vocational technical student organization/club with a constitution and by-laws.</td>
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<td>104. Recruiting members for the vocational technical student organization/club.</td>
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<td>105. Establishing a vocational technical students organization/club contest awards program.</td>
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<td>Advertising the activities of the vocational technical student organization/club.</td>
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<td>Evaluating the outcomes of a vocational technical student organization/club.</td>
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<td>I. Program Evaluation</td>
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<td>110.</td>
<td>Specifying evaluation techniques and criteria which determine satisfaction of minimum as well as desirable student performance at the completion of the learning activities.</td>
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<td>Outlining the procedures used to evaluate a vocational technical education program.</td>
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<td>Conducting a student follow-up evaluation as a part of a vocational technical education program.</td>
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<td>Using vocational technical evaluation techniques and instruments designed to diagnose vocational technical students' academic, occupational, and social development needs.</td>
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<td>Evaluating vocational technical instruction using a variety of techniques to determine the effectiveness in helping vocational technical students attain occupational goals.</td>
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<td>Establishing criteria for evaluating the appropriateness of the vocational technical education program.</td>
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<td>Providing constructive input to the inspectorate division of the Ministry of Education in evaluating school vocational technical education programs.</td>
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<td>Evaluating relevance of research findings to vocational technical education in Swaziland.</td>
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<td>J. Professional Development</td>
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<td>129. Participating in activities designed to update professional competencies in vocational technical education.</td>
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<td>130. Developing skills to conduct research projects in vocational technical education.</td>
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<td>137. Expressing degree of worthiness of other vocational technical teachers and students in other vocational technical programs.</td>
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<td>138. Expressing degree of worthiness of teachers and students in general education.</td>
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<th>1 to 5 ( n=100 )</th>
<th>6 to 10 ( n=53 )</th>
<th>11 and Above ( n=38 )</th>
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<td>Imp( \bar{x} )</td>
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<td>Demonstrating behavior worthy of other vocational technical teachers'</td>
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<td>Demonstrating a degree of trust among vocational technical teachers.</td>
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<td>3.88</td>
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<td>Exhibiting decision making ability among vocational technical teachers.</td>
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<td>144.</td>
<td>Inspiring change in professional habits of vocational technical teachers.</td>
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<td>3.57</td>
<td>2.89</td>
<td>3.75</td>
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<td>Demonstrating a leadership role as a vocational technical teacher.</td>
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<td>146.</td>
<td>Handling conflict resolutions among vocational technical education teachers.</td>
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<td>3.75</td>
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<td>Sharing concern for lack of student interest in vocational technical</td>
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<td>education with other teachers.</td>
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<td>Inspiring vocational technical teachers with positive ideas on vocational</td>
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<td>Demonstrating sincerity in relationships with vocational technical students.</td>
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<td>4.01</td>
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<td>Treating vocational technical students equally regardless of sex.</td>
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<td>4.32</td>
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<td>152.</td>
<td>Expressing sensitiveness in relationships in dealing with vocational</td>
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<td>3.58</td>
<td>2.97</td>
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<td>Acquiring personal habits which are acceptable to vocational technical</td>
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<td>Accepting different family socioeconomic backgrounds of vocational technical</td>
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<td>3.84</td>
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<td>Adjusting to communicable vocational technical education language of the</td>
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<td>3.27</td>
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<td>Responding to community needs that are related to vocational technical</td>
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<td>4.14</td>
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<td>Accomplishing professional responsibilities in a timely manner.</td>
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<td>Making valid judgments in conducting vocational technical education</td>
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<td>Displaying open-mindedness in handling vocational technical personnel</td>
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<td>3.91</td>
<td>3.28</td>
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<td>161.</td>
<td>Engaging in vocational technical team teaching without discrimination.</td>
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<td>4.27</td>
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 superscript a | Importance; superscript b Performance

 superscript c | Importance Scale: 5=of very high importance; 4=of high importance; 3=of medium importance; 2=of low importance; 1=of very low importance; 0=of no importance
 superscript d | Performance Scale: 5=of excellent ability to perform; 4=of very good ability to perform; 3=of good ability to perform; 2=of fair ability to perform; 1=of poor ability to perform; 0=of no ability to perform
 superscript e | Represents means that are in a different category rating from the mean ratings by other specialty groups.
Research Question 9

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

On 13 of the 15 competencies in the area of Program Planning and Development, teachers were in agreement in regard to their perceived abilities to perform the competencies. On 2 of the 15 competencies, teachers rated their abilities to perform the competencies as "fair" whereas in the remaining 11 competencies teachers rated their abilities as "good." These data were reported in Table 8.

Differences in the perceived abilities to perform the competencies were observed with two competencies. On the competency, No. 5 "Explaining the Swaziland Government vocational technical education philosophy/principles/policies" (2.76), 1 to 5 years of teaching experience teachers rated their ability to perform as "good" whereas 6 to 10 years and 11 and above years of teaching experience teachers rated their ability as "fair."

On the competency, No. 13 "Interpreting occupational information and community survey data" (2.38), 11 and above years of teaching experience teachers rated their ability to perform as "fair ability," whereas, the other groups rated their ability to perform this competency as "good."
Competency Area: School-Community Relations

Research Question 8

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

The ratings of the competencies in the School Community Relations area were all in the "high importance" category by all three teacher groups. These data were reported in Table 8.

Research Question 9

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

On rating the competencies in the area of School Community Relations, teachers did not differ in their abilities and all the competency mean values fell in the "good ability" rating category. The data were reported in Table 8.

Competency Area: School and Business-Industry Relations

Research Question 8

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

On 14 of the 15 competencies in the area of School and Business – Industry Relations, the 1 to 5 years, 6 to 10 years, and 11 and above years of teaching experience teachers were in agreement in respect of their perceived
importance of the 14 competencies. The mean ratings of the 14 competencies were in the "high importance" rating category.

On rating the competency, No. 33 "Updating internship experience (cooperative education) records of vocational technical students" (3.48), teachers in the 1 to 5 years of teaching experience rated the importance of this competency as "medium importance," while the other two groups of teachers rated the competency as "high importance." These data were shown in Table 8.

Research Question 9

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

In the competency area of School and Business-Industry Relations, all 15 competencies were rated as "good ability" to perform by all three groups of teachers. These data were shown in Table 8.

Competency Area: Curriculum Development

Research Question 8

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

All three groups of teachers were in agreement on the levels of importance of all nine competencies with ratings of "high importance." These data were reported in Table 8.
Research Question 9

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

On eight of the nine competencies, the 1 to 5 years, 6 to 10 years, and 11 and above years of teaching experience teachers were in agreement on the rating of the competencies. On these eight of the competencies, teachers rated their abilities to perform as "good." On rating the competency, No. 42 "Working with teacher education/training institutions and subject panels to identify competencies for a vocational curriculum in your teaching/specialty area" (3.50), the 11 and above years of teaching experience teachers rated their ability to perform as "very good" while the other groups rated the competency as "good ability" to perform. These data were reported in Table 8.

Competency Area: Facilities and Equipment

Research Question 8

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

On 2 of the 17 competencies in the competency area of Facilities and Equipment, teachers differed in their perceived importance. The competency, No. 53 "Providing safety measures for vocational technical education students using hazardous equipment/materials" (4.70) was rated as "very high importance" by the 6 to 10 years of teaching experience teachers, while the other teachers rated it as "high importance."
On rating the competency, No. 57 "Providing for the storage and security of vocational technical education tools and equipment" (4.30) the 1 to 5 years of teaching experience teachers rated the competency as "high importance," while the other groups rated the competency as "very high importance."

Research Question 9

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

On 2 of the 17 competencies, the 1 to 5 years of teaching experience teachers differed from the other two groups, the 6 to 10 years of experience teachers differed from the other two groups on one competency of the 17, and on 6 of the 17 competencies, the 11 and above years of experience teachers differed from the other two groups. The data were reported in Table 8.

The competencies, No. 57 "Providing for the storage and security of vocational technical education tools and equipment" (3.48) and No. 58 "Designing student check-out procedures for vocational technical education laboratory/workshop equipment tools and supplies" (3.29) were rated by the 1 to 5 years of teaching experience teachers as "good ability" to perform, while the other groups rated both competencies as "very good ability" to perform. The 6 to 10 years of experience teachers differed from the other groups of teachers when they rated the competency, No. 53 "Providing safety measures for vocational technical education students using hazardous equipment/materials" with a (3.55), or a "good ability" to perform.

The following competencies were rated as "very good ability" to perform by the 11 and above years of teaching experience teachers, while the other groups
of teachers rated these competencies as a "good ability" to perform: No. 46 "Compiling a list of vocational technical education consumable supplies needed for the school year" (3.68), No. 47 "Identifying new vocational technical education tools and equipment needed for the school year" (3.55), No. 56 "Designing a system for repairing and servicing vocational technical education tools and equipment" (3.53), No. 59 "Directing students in a system for cleaning and maintaining the vocational technical education laboratory/workshop" (3.68), and No. 60 "Arranging layout of the vocational technical education laboratory/workshop to simulate the occupational workplace environment" (3.53).

The competency, No. 55 "Maintaining an inventory of vocational technical education tools, supplies and equipment" (3.49) was rated as a "good ability" to perform by the 11 and above years of teaching experience teachers while other groups rated the competency as a "very good ability" to perform.

**Competency Area: Planning and Executing Instruction**

**Research Question 8**

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

On 2 of the 17 competencies, the 11 and above years of teaching experience teachers differed from the 1 to 5 years and 6 to 10 years of teaching experience teachers as they rated the competencies as "very high importance" while the later groups rated them as "high importance." All 17 competencies were all rated by all three groups as "high" or "very high importance."
The competencies, No. 65 "Using audio and visual equipment appropriate for a vocational technical lesson" (4.56) and No. 66 "Applying vocational technical education instructional techniques, materials and learning tools appropriate for the lesson objective" (4.50) were rated as "very high importance."

Research Question 9

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

On 3 of the 17 competencies, the 1 to 5 years of teaching experience teachers differed from the other groups of teachers by rating these three competencies as "good ability" to perform whereas, the other groups rated them as "very good ability." One competency was rated as "very good ability" to perform by the 1 to 5 years of teaching experience teachers, while the other groups rated it with a "good ability" to perform.

The 11 and above years of teaching experience teachers differed from the others on rating 3 of the 17 competencies as "very good ability" to perform whereas, the other groups rated the competencies as "good ability" to perform.

The following competencies were rated as "good ability" to perform by the 1 to 5 years of experience teachers, while the other teachers rated them as "very good ability" to perform: No. 65 "Using audio and visual equipment appropriate for a vocational technical lesson" (3.48); No. 66 "Applying vocational technical education instructional techniques, materials and learning tools appropriate for the lesson objective" (3.49); and No. 67 "Identifying sites for field trips that provide learning environments" (3.48). On rating the
competency, No. 76 "Developing a lesson plan for a vocational instructional unit" (3.52), the 1 to 5 years of experience teachers indicated "very good ability" to perform, whereas the other groups of teachers indicated a "good ability."

The 11 and above years of teaching experience teachers differed from the 1 to 5 years and 6 to 10 years of experience as they rated higher the following competencies as "very good ability" to perform: No. 69 "Demonstrating competency in using a variety of teaching methods in vocational technical education such as problem-solving, simulations, discovery, role play, discussion, projects" (3.50); No. 71 "Creating an environment that facilitates learning of vocational technical subjects" (3.51); and No. 72 "Sequencing vocational technical instructional units (scheme of work) to enhance student learning" (3.62).

**Competency Area: Career Guidance**

**Research Question 8**

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

In the competency area of Career Guidance, the 1 to 5 years, 6 to 10 years, and 11 and above years of teaching experience were in agreement on 19 of the 20 competencies in terms of the level of importance. The 19 competencies were rated by all three groups as "high importance." These data were reported in Table 8. The one competency rated differently by the 11 and above years of experience teachers was No. 91 "Conducting individual conferences with vocational technical students on career aspirations and job opportunities"
(3.47), a "medium importance" rating. The 1 to 5 years and 6 to 10 years of experience teachers rated this competency as "high importance."

Research Question 9

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

On 19 of the 20 competencies the 1 to 5 years, 6 to 10 years, and 11 and above years of teaching experience teachers were in agreement in respect of their ability to perform the competencies. The 19 competencies were rated by all three groups as "good ability" to perform. The one competency, No. 98 "Writing letters of recommendation for jobs/college/university/placement for vocational students" (3.81) was rated as "very good ability" to perform by the 11 and above years of teaching experience teachers only. These data were reported in Table 8.

Competency Area: Student Organization/Club

Research Question 8

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

In the competency area of Student Organization/Club the three groups of teachers were in agreement on 7 of the 10 competencies in determining the importance of these competencies and these were rated "high importance."
The 3 competencies rated differently were in the "medium importance" category rating.
The 1 to 5 years of experience teachers rated the following competencies differently from the other groups of teachers: No. 101 "Integrating vocational technical student organization activities into the vocational technical instructional program" (3.32); and No. 108 "Advertising the activities of the vocational technical student organization/club" (3.47), both falling in the "medium importance" category. The 6 to 10 years and 11 and above years of teaching experience teachers rated these competencies as "high importance."

On the other hand, the 11 and above years of teaching experience teachers differed from the other teachers in rating the competency, No. 100 "Securing internal and external support for the vocational technical student organization/club" (3.49), a "medium importance" rating. The other two groups rated this competency as "high importance."

**Research Question 9**

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

No differences were detected in the competency area of Student Organization/Club among all three groups of teachers. All competencies were rated as "good ability" to perform. These data were reported in Table 8.
Competency Area: Program Evaluation

Research Question 8

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

In the competency area of Program Evaluation, the 1 to 5 years, 6 to 10 years, and 11 and above years of teaching experience teachers were in full agreement on the levels of importance of the 12 competencies. All competencies by all three groups were rated as "high importance." These data were reported in Table 8.

Research Question 9

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

There were no differences denoted in the competency area of Program Evaluation among the 1 to 5 years, 6 to 10 years, and 11 and above years of teaching experience teachers in respect of their perceived abilities to perform the 12 competencies. All 12 competencies were rated as "good ability" to perform. These data were reported in Table 8.
Competency Area: Professional Development

Research Question 8

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

In the Professional Development competency area, on eight of the nine competencies the 1 to 5 years, 6 to 10 years, and 11 and above years of teaching experience were in full agreement with the levels of importance of the competencies. The eight competencies on which they were in agreement were rated "high importance." However, the competency, No. 129 "Participating in activities designed to up-date professional competencies in vocational technical education" (4.51), with a "very high importance" rating, was accorded by 6 to 10 years of experience teachers. The other groups of teachers rated it as "high importance."

Research Question 9

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

Of the nine competencies in this competency area, the 1 to 5 years, 6 to 10 years, and 11 and above years of teaching experience teachers were in agreement on eight competencies and these were rated "good ability" to perform. On rating their ability to perform the competency, No. 129 "Participating in activities designed to update professional competencies in vocational technical education" (3.63), the 11 and above years of teaching
experience teachers rated this higher with a "very good ability." These data were reported in Table 8.

**Competency Area: Interpersonal Relations**

**Research Question 8**

Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

The Interpersonal Relations competency area has 31 competencies. On 28 competencies, teachers were in agreement on the levels of importance of the competencies and they rated these of "high" or very high importance.

The 11 and above years of teaching experience teachers differed from the other two groups in respect to the following competencies: No. 136 "Respecting religious preferences and commitments of vocational technical teachers and students" (3.50), No. 139 "Participating in group discussions with vocational technical teachers" (4.53) by rating them higher than the other groups. No. 153 "Acquiring personal habits which are acceptable to vocational technical students" (3.46), rated "medium importance," while the other two groups rated them as "high importance."

With the following competencies, the 6 to 10 years of teaching experience teachers differed from the 1 to 5 years and 11 and above years of teaching experience teachers by giving a higher ratings to: No. 135 "Recognizing tribal/ethnic/nationality differences among vocational technical students and teachers" (3.50), and No. 161 "Engaging in vocational technical team teaching
without discrimination” (4.55), a “high importance” and “very high importance” rating, respectively.

Research Question 9

Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years of teaching experience?

In expressing their abilities to perform the 31 competencies in the Interpersonal Relations competency area, the three groups of teachers agreed on 26 competencies which they rated either as “very good ability” or “good ability” to perform. On the remaining 5 competencies, the three groups of teachers somewhat differed.

The 1 to 5 years of teaching experience teachers differed from the 6 to 10 years and 11 and above years of teaching experience teachers when rating the competencies: No. 133 “Demonstrating professional integrity in relationships with vocational technical teachers and students” (3.54), a “very good ability” rating, and rating lower the competency, No. 142 “Demonstrating a degree of trust among vocational technical teachers” (3.39), a “good ability” rating.

In expressing their ability to perform, the 6 to 10 years of teaching experience teachers rated the following competencies rather differently from the other groups of teachers: No. 131 “Expressing honesty in dealing with the feelings and opinions of vocational technical teachers and students” (3.47), a “good ability” rating; and No. 148 “Sharing concern for lack of student interest in vocational technical education with other teachers” (3.53), a “very good ability” rating. They had rated these two competencies as “very good ability” and “good ability” to perform.
Differing from the 1 to 5 years and 6 to 10 years of teaching experience teachers, the 11 and above years of teaching experience teachers rated higher their ability to perform the competency, No. 157 "Responding to community needs that are related to vocational technical education" (3.64) as "very good ability."

**Chapter Summary**

This study investigated the professional vocational technical competencies needed by Swazi land teachers of agricultural, commercial, home economics, and technical studies. A stratified random sample of the four specialty groups (191 sample size) was selected from a total population of 665 teachers. A total of 161 professional vocational technical competencies identified in two, one-day focus group workshops were rated by all 191 respondents due to a 100% rate of return.

Respondents were asked to rate the importance of each to competency in fulfilling job expectations and then rate their perceived ability to perform the competency. Data were analyzed by importance and performance ratings by functions of the four specialty groups, levels of education, and years of teaching experience. Competencies rated highest and lowest in mean values of importance and performance by each of the four specialty groups were highlighted. Furthermore, differences between the four specialty groups, their levels of education, and their years of teaching experience were analyzed and discussed.
Chapter 5

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND DISCUSSION

Based upon the findings presented in Chapter 4, a number of conclusions may be drawn and recommendations made concerning this investigation. Chapter 5 provides this information in four sections. The opening section provides a summary of the study, while the second and third sections present conclusions and recommendations. The fourth section presents a discussion for potential policy formulation and practice.

Summary of the Study

Statement of the Problem

The major purposes of this study were to identify the professional vocational technical education competencies needed by Swaziland agricultural, commercial, home economics, and technical teachers; and to assess the teachers' perceived importance of and the perceived ability to perform these competencies. This study was conducted in the wake of educational reform in Swaziland with the Ministry of Education vocationalizing the secondary/high school curriculum of the practical arts, namely, agricultural, commercial, home economics, and technical studies. The study addressed as the major question: What are the professional vocational technical education competencies that teachers must possess to enable them to deliver a
secondary/high school vocational technical education curriculum? The study also sought to determine if selected variables such as teaching specialty area, education level, and years of teaching experience influenced perceived importance and performance of the vocational competencies.

The Sample

The entire population from which the stratified random sample was drawn consisted of 665 teachers. The stratified, random sample for the study was 191 teachers, composed of agricultural--57, commercial--54, home economics--40, and technical studies--40 teachers in Swaziland. A 100% rate of return was obtained.

Instrumentation

Identification of the professional vocational technical education competencies was conducted in two, one-day focus group workshops with Swaziland professionals, namely, teacher educators, curriculum development specialists, and school senior inspectors (supervisors) from the four specialty areas (groups) of agricultural, commercial, (business), home economics, and technical studies. The results of the workshops were a universe of 161 professional competencies for Swaziland secondary/high school vocational technical teachers. From these competencies, a questionnaire was formulated with importance and performance measurement scales. Values on each scale ranged from 5 to 0 (very high importance to no importance of the competency) and 5 to 0 (excellent ability to no ability to perform the competency). The questionnaire consisting of 161 professional vocational technical education
competencies was validated and pilot tested in Swaziland. A copy of these competencies can be found in Appendix A.

Data Collection

A total of 191 questionnaires were mailed with cover letters, a return, stamped envelope, and instructions for completing the questionnaire. All 191 returned questionnaires were returned in usable form after one follow up.

Findings

Descriptive statistics were used to analyze and summarize the data relevant to the research questions. Such statistical techniques are used to derive from raw data certain indices to characterize the entire set of data. The following paragraphs summarize the findings of the nine research questions posed for the study.

Research Question 1. What are the professional vocational technical education competencies needed by Swaziland agricultural, commercial, home economics, and technical teachers?

The results of the two, one-day focus group workshops revealed that 161 professional vocational technical education competencies were needed by Swaziland professionals in the specialty areas of agricultural, commercial, home economics, and technical studies.

Research Question 2. What is the perceived importance of each of the professional vocational technical education competencies as reported by agricultural, commercial, home economics, and technical teachers?
Most of the 161 competencies were rated as "high" or "very high" importance by all groups of teachers. The number and percent of competencies rated as "high" or "very high" by each group were: agricultural teachers 157 (98%), commercial teachers 156 (97%), home economics 146 (91%), and technical teachers 138 (86%).

Research Question 3. Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the importance of each of the professional vocational technical education competencies?

At least one of the four specialty groups differed on 41 (26%) of the 161 competencies when rating their perceived importance. However, the differences in perceptions were in 9 of the 11 competency areas. In the competency areas of Program Evaluation and Professional Development, all four specialty groups were in full agreement (high importance) with no perceived importance rating difference.

Research Question 4. What is the perceived self-reported ability to perform each of the professional vocational technical education competencies by agricultural, commercial, home economics, and technical teachers?

Most of the 161 competencies were rated as "good ability or higher" in performance by all groups of teachers. The number and percent of competencies rated as "good or higher ability" to perform by each group were: agricultural teachers 154 (96%), technical teachers 152 (95%), home economics teachers 149 (93%), and commercial teachers 143 (89%).

Research Question 5. Do the agricultural, commercial, home economics, and technical teachers differ in their perceptions of the ability to perform each of the professional vocational technical education competencies?
Of the 161 competencies, at least one of the four specialty groups differed on 71 (44%) of the competencies when rating their abilities to perform them. These differences were observed in all 11 competency areas. However, in the competency areas of: Program Planning and Development, specialty teacher groups differed only on 2 of the 15 competencies; School and Business-Industry Relations, specialty teacher groups differed only on 3 of the 15 competencies; and Program Evaluation, specialty teacher groups differed only on 3 of the 12 competencies.

**Research Question 6.** Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of the level of education?

On 35 (22%) of the 161 competencies, certificate, diploma, and degree teachers differed as they rated the perceived importance of the professional vocational competencies. Differences were noted in 8 of the 11 competency areas. In the competency areas of School and Business-Industry Relations, Program Evaluation, and Professional Development, certificate, diploma, and degree teachers expressed no difference in regard to the perceived importance of the competencies, rating all competencies as "high" importance.

**Research Question 7.** Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of the level of education?

Of the 161 competencies, certificate, diploma, and degree teachers differed on 46 (29%) competencies with respect to their ability to perform them. The differences were spread across all 11 competency areas.
**Research Question 8.** Do differences exist in the perceived importance of each of the professional vocational technical education competencies as a function of years of teaching experience?

On 17 (11%) of the competencies, 1 to 5 years, 6 to 10 years, and 11 and above years of teaching experience teachers differed on the perceived importance of the competencies. The differences were noted in 8 of the 11 competency areas. In the competency areas of School and Community Relations, Curriculum Development, and Program Evaluation, there were no differences among these three groups of teachers as they rated the perceived importance of all competencies, of "high" importance.

**Research Question 9.** Do differences exist in the perceived self-reported ability to perform each of the professional vocational technical education competencies as a function of years teaching experience?

Of the 161 competencies, only on 25 (16%) competencies the 1 to 5 years, 6 to 10 years, and 11 and above years of teaching experience teachers differed in their perceived abilities to perform the competencies. However, it was in 7 of the 11 competency areas that all three groups differed. In the competency areas of School and Community Relations, School and Business-Industry Relations, Student Organization, and Program Evaluation, all groups rated these competencies as a "good ability" to perform.

**Conclusions**

The results of this investigation led to the conclusion that the professional vocational technical education competencies developed as a part of this study
are needed by Swaziland teachers of agricultural, commercial, home economics, and technical studies. In reference to the initial study on professional vocational education competencies conducted by Cotrell et al. (1972a) in the United States, the professional vocational education competencies identified in this study were similar and also were organized into several categories or competency areas.

Regarding the ability of the respondents to perform the professional competencies, teachers indicated their abilities as good. However, in reflecting on the responses of the teachers and that a good ability may not always indicate the ability to perform those competencies at an acceptable level, a conclusion of this study was that teachers need to master and develop their professional competencies to higher and more acceptable levels of performance. Teachers' self-reported levels of performance indicates a potential need for inservice education to raise their abilities to fulfill job expectations to a level expected by students, the profession, business and industry, and society in general. Performance-based education supported by Elam (1971), which relies heavily upon the identification of professional competencies in the preparation and inservice of teachers, lend support for the use of these professional vocational competencies for similar purposes.

The variable of education for 11% of certificate, 68% of diploma, and 21% of bachelor degree teachers was analyzed in this study. In examining the findings in respect of mean differences on the interpretive scale utilized in this study, mean differences among these three levels of education were relatively small and few. There was not a distinct, observable upward trend in mean ratings from certificate, diploma to bachelor degree teachers which reflected
higher mean values with higher levels of or more education. It must be noted that the mean differences were determined utilizing an interpretive scale corresponding to the survey instrument scale, and the interpretive scale is for determination of practical significance rather than statistical significance differences. Furthermore, the mean ratings are for perceived importance and perceived self-reported not demonstrated performance of the competencies.

The years of teaching experience as a variable for 52% of the teachers with 1 to 5 years of teaching experience, 28% with 6 to 10 years, and 20% with 11 and above years of teaching experience was analyzed. The study revealed, in respect of mean differences on the interpretive scale, that there were fewer and smaller mean differences among the three levels of teaching experience. It must be noted that the mean differences were determined utilizing an interpretive scale which has relevance to practical significant differences rather than statistical significant differences.

Finally, perceptions of importance and performance of agricultural, commercial, home economics, and technical teachers of the competencies were more similar than different as analyzed by the interpretive scale. It was concluded that teachers were a relatively homogenous group based on the analysis of the variable of specialty area.

**Recommendations**

In view of the fact that teachers rated most of the 161 professional vocational technical education competencies, the same competencies identified by teacher educators, senior inspectors, and curriculum development specialists, as high importance, it is recommended that they be adopted and
incorporated in the vocational technical teacher education programs for Swaziland teachers of agricultural, commercial, home economics, and technical studies. This recommendation is further supported by the fact that teachers, regardless of their levels of education and years of teaching experience, rated the competencies of high importance.

Second, the present study identified the professional vocational technical education competencies needed by teachers, but did not distinguish those to include in preservice education or inservice programs. It is then recommended that an investigation be conducted that would delineate which professional vocational technical education competencies should be taught in the preservice teacher education program and which should be offered in an inservice program. A study of this type would help to develop and implement a sequenced teacher education program which would lead to a higher standard of teacher performance and ultimately to a more effective vocational technical education.

A final recommendation is for further research to analyze the discrepancy index data (Appendix F) to provide further direction in respect of priority in service teacher education for the current teachers. In view of the fact that data obtained in this study reflects "average" perceived importance of and "average" ability to perform the competencies, a further investigation of the perceived importance and perceived self-reported ability to perform the competencies by the best teachers would be in order. This would enhance the establishment of the benchmark expected performance behavior of the competencies by teachers.
Discussion

The findings and conclusions of this study revealed that overall most competencies were rated as of "high importance" by all four specialty groups of agricultural, commercial, home economics, and technical studies. However, in contrast to their perceived self-reported performance of the same competencies, overall the four specialty groups rated themselves as of "good ability" to perform them, a rating one scale point below their rating of the importance of the competencies. This one scale point lower mean rating of their ability to perform was a reflection of an existence of a discrepancy between perceived importance mean values and perceived self-reported performance mean values. Therefore, deficiencies exist in the respondent's ability to perform the competencies to the extent of the perceived level of importance as rated by the same respondents.

Appendix F, Discrepancy Values for Importance and Performance of Professional Vocational Technical Education Competencies for Swaziland Teachers of Agricultural, Commercial, Home Economics, and Technical Studies, showed respondents weighted values on the basis of the discrepancy index as documented by Borich (1980) as deficient in basically most of the competencies. This clearly indicated a need for vocational teacher inservice education of current teachers, to enable them to effectively deliver a secondary/high school vocational technical education curriculum in Swaziland schools. Hence, the implications for policy measures and utilization are discussed below.

The focus group workshops conducted brought together for the first time teacher educators, curriculum development specialists, and school senior
inspectors (supervisors) to discuss teacher education. The process, first of its kind, yielded positive results of the 161 professional vocational technical education competencies. Therefore, the process ought to be continued to maintain dialogue concerning common interest among the four specialty areas.

The results of the study indicated that all four specialty areas rated the competencies high in importance. That carried the implication that a mechanism must be formulated to provide for the inclusion of these competencies in the current preservice and inservice teacher education programs.

In incorporating the competencies in the teacher education programs, consideration should be given to a common core of preparation of vocational technical teachers across all four specialty areas. The common core would be generic and yet maintain some uniqueness of each specialty area.

The identification of these competencies by Swaziland professionals has laid the groundwork and incentive to create a competency-based teacher education program. Such a program would ensure that graduates from teacher education programs do not just have knowledge, appreciation, and understanding, but are able to apply and demonstrate possessed professional vocational and technical education competencies in a teaching situation.

Identified competencies can serve as a starting point for the communication of expectations, that is, what is expected of someone to teach in a vocational technical curriculum. A communication of expectations in competencies presents an objective presentation of the needed competencies.
References


Special Committee to Study Pre-Vocational Education. (1990). Skills for the future: The relevance of school and tertiary education to the world of work. Mbabane, Swaziland: Ministry of Education.


Vocational Training Branch International Labor Office. (1986). Swaziland manpower, education and training. Mbabane, Swaziland: Ministry of Education.

APPENDIX A

FOCUS GROUP WORKSHOP PARTICIPANTS
Focus Group Workshop Participants

Dr. M. Habedi
Mr. S. P. M. Shongwe
Mrs. C. Mkhonta
Mr. E. V. Dlamini
Mr. A. Ndzingane
Mrs. Y. Mnewango
Mr. S. Mkhonta
Dr. M. J. Simelane
Mrs. M. N. Mabuza
Mrs. B. D. Ginindza
Mr. M. Bhembe
Mr. G. Simelane
Mr. M. Mamba
Mrs. D. Sibandze

Home Economics Studies
Agricultural Studies
Home Economics Studies
Agricultural Studies
Technical Studies
Commercial Studies
Technical Studies
Agricultural Studies
Home Economics Studies
Home Economics Studies
Technical Studies
Commercial Studies
Commercial Studies
Career Guidance Services
APPENDIX B

QUESTIONNAIRE
QUESTIONNAIRE

PROFESSIONAL VOCATIONAL

TECHNICAL EDUCATION COMPETENCIES

FOR SWAZILAND TEACHERS OF

AGRICULTURAL, COMMERCIAL,

HOME ECONOMICS,

AND

TECHNICAL STUDIES.

COMFORT B. MNDEBELE
Questionnaire

PROFESSIONAL VOCATIONAL TECHNICAL EDUCATION
COMPETENCIES FOR SWAZILAND TEACHERS OF AGRICULTURAL,
COMMERCIAL, HOME ECONOMICS, AND TECHNICAL TEACHERS.

Introduction

This questionnaire contains a potential list of professional vocational technical
education competencies of secondary/high school teachers of agricultural,
commercial, home economics, and technical studies. This research is based on the
recommendations contained in the Report of The Special Committee to study Pre-
Education:Skills For The Future: Relevance of School and Tertiary Education to the
World of Work (Ministry of Education, 1990) in Swaziland. You are kindly
requested as a teacher with expertise in teaching to complete the questionnaire by
expressing your opinion on the IMPORTANCE of the competency (knowledge,
skills, attitude) in being an effective teacher, and indicating a self assessment of your
ABILITY TO PERFORM each competency. Please note that this is NOT an
evaluation of your teaching. The information given us will be treated in strict
confidence. It should take you about 55 minutes to complete this questionnaire.

The following definitions are provided to assist you in responding to this
questionnaire.

1. Professional vocational technical education competency - the abilities
   needed to perform the expected job responsibilities of a vocational technical
   education teacher at an acceptable level. As further clarification, these
   professional competencies do not include the knowledge, skills, and
   abilities needed by teachers as they teach the curriculum content associated
   with each vocational technical specialty area.

2. Importance - perceived value of the professional vocational technical
   education competency in fulfilling job expectations as an effective teacher.

3. Ability to Perform - perceived expertise to apply the professional vocational
   technical education teacher competency when fulfilling job expectations.
Directions for Part A:  
Personal Information

Please complete the following section of the questionnaire as accurately as possible. Put a tick mark [ ] within the brackets in each of the following as it applies to you, and complete the blank spaces as applicable.

1. Teaching/Specialty Area: (Tick one)
   [ ] Agriculture
   [ ] Commercial
   [ ] Home Economics
   [ ] Technical

2. Do you also have responsibility as a Career Guidance Teacher?
   Yes_____ No_____

3. Gender:
   [ ] Female
   [ ] Male

4. Highest Level of Education: (Tick one)
   [ ] High School
   [ ] Certificate
   [ ] Diploma
   [ ] Bachelor’s degree
   [ ] Master’s degree
   [ ] Other, specify______________________________

5. Total Number of Years of Teaching Experience: _____ years

6. Your Name__________________________

7. Name of Your School__________________________

8. Telephone Number__________________________
Directions for Part B:
Vocational Technical Education
Competencies

Read each competency statement and indicate to the right of each item your rating of the statement, both in terms of its IMPORTANCE (how important) it is for you to be an effective teacher and in terms of your perceived PERFORMANCE (your ability to perform it). Indicate your rating in each situation by circling the number that reflects your opinion/assessment. Please circle one number under IMPORTANCE and one number under PERFORMANCE for every competency statement. Make sure ALL the competency statements are rated. Please use a pencil which will allow you to erase and change your response if you need to do so. Note that definitions for the rating scales are provided at the top of each page for your reference. Use these scales and make reference to them as often as the need arises. Below is an example of how to rate the statements.

EXAMPLE:

Perceived Importance Scale:

5 = of very high importance to be an effective teacher
4 = of high importance to be an effective teacher
3 = of medium importance to be an effective teacher
2 = of low importance to be an effective teacher
1 = of very low importance to be an effective teacher
0 = of no importance to be an effective teacher

Perceived Performance Scale:

5 = of excellent ability to perform the competency
4 = of very good ability to perform the competency
3 = of good ability to perform the competency
2 = of fair ability to perform the competency
1 = of poor ability to perform the competency
0 = of no ability to perform the competency

<table>
<thead>
<tr>
<th>Competency Statement</th>
<th>Importance</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to differentiate between a car engine and a tractor engine.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
</tbody>
</table>
Perceived Importance Scale:  
5 = of very high importance  
4 = of high importance  
3 = of medium importance  
2 = of low importance  
1 = of very low importance  
0 = of no importance  
Perceived Performance Scale:  
5 = of excellent ability to perform  
4 = of very good ability to perform  
3 = of good ability to perform  
2 = of fair ability to perform  
1 = of poor ability to perform  
0 = of no ability to perform  

A. AREA: PROGRAM PLANNING AND DEVELOPMENT IN VOCATIONAL TECHNICAL EDUCATION

<table>
<thead>
<tr>
<th>Competency Statement</th>
<th>Importance</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Developing materials for conducting a community survey on needs for a vocational technical education program.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>2. Outlining activities and procedures for conducting a community survey on needs for a vocational technical education program.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>3. Conducting a community survey to identify local employer demands for a vocational technical education program consistent with needs of students, community, and society.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>4. Cooperating with a vocational technical education advisory committee in selecting and developing a vocational program that reflects present and future trends of Swaziland's economy.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>5. Explaining the Swaziland Government vocational technical education philosophy/principles/policies.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>6. Interpreting the Swaziland Industrial and Training Acts.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>7. Communicating Swaziland Labor Laws to vocational technical education students.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>8. Interpreting national manpower and labor statistics to develop/revise vocational technical education curricula.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>9. Determining the Swaziland teachers' beliefs about vocational technical education on planning, implementing, and evaluating vocational technical education.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>10. Evaluating the influence of Swaziland teachers' beliefs about vocational technical education on planning, implementing, and evaluating vocational technical education program.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
</tbody>
</table>
Perceived Importance Scale:  
5 = of very high importance  
4 = of high importance  
3 = of medium importance  
2 = of low importance  
1 = of very low importance  
0 = of no importance

Perceived Performance Scale:  
5 = of excellent ability to perform  
4 = of very good ability to perform  
3 = of good ability to perform  
2 = of fair ability to perform  
1 = of poor ability to perform  
0 = of no ability to perform

Competency Statement

11. Articulating/coordinating the secondary/high school vocational technical education program with the post secondary vocational education centers/institutions, Swaziland College of Technology, and University of Swaziland.
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

12. Identifying persons to be served by a vocational technical education program.
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

13. Interpreting occupational information and community survey data.
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

15. Implementing a vocational technical education program in an urban school environment.
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

B. AREA: SCHOOL-COMMUNITY RELATIONS IN VOCATIONAL TECHNICAL EDUCATION

16. Implementing public relations activities for promoting the field of vocational technical education.
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

17. Implementing human relations activities for developing parents self-confidence in vocational technical students.
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

18. Establishing relationships with parents of vocational technical students and understanding students' home conditions.
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

19. Conducting conferences with parents of vocational technical students at home and school to promote vocational technical education.
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

20. Assessing conditions in the community where vocational technical students live.
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

21. Conducting conferences with parents of vocational technical students who are having difficulty with their children's choices of occupations/careers.
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0
Perceived Importance Scale:  
5 = of very high importance  
4 = of high importance  
3 = of medium importance  
2 = of low importance  
1 = of very low importance  
0 = of no importance

Perceived Performance Scale:  
5 = of excellent ability to perform  
4 = of very good ability to perform  
3 = of good ability to perform  
2 = of fair ability to perform  
1 = of poor ability to perform  
0 = of no ability to perform

<table>
<thead>
<tr>
<th>Competency Statement</th>
<th>Importance</th>
<th>Performance</th>
</tr>
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<tbody>
<tr>
<td>C. AREA: SCHOOL AND BUSINESS-INDUSTRY RELATIONS IN VOCATIONAL TECHNICAL EDUCATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Collaborating with business and industry in planning and conducting vocational technical education program.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>23. Conducting a survey of business and industry to determine prospective employer/occupational needs in your teaching/specialty area.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>24. Working with business and industry in selecting vocational technical education content in your specialty area.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>25. Determining the present and future socio-economic conditions in the community.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>26. Planning internships (cooperative education) with business and industry for vocational technical students.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>27. Developing criteria and procedures for selecting and assigning vocational technical students for internships (cooperative education).</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>28. Matching attitudes and interests of vocational technical students to job/internship experience (cooperative education) placement.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>29. Developing a contract agreement with business and industry for vocational technical student internship (cooperative education) experiences.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>30. Implementing a system for coordinating the learning experiences of vocational technical education students during their internship (cooperative education) with business and industry.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>31. Supervising vocational technical student internship experiences (cooperative education) in relationship to expected on-the-job experiences and provide on-site instruction as needed.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>Competency Statement</td>
<td>Importance</td>
<td>Performance</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>32. Supervising vocational technical student internship (cooperative education) as a joint responsibility of both the vocational technical teacher and business/industrial representatives.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>33. Updating internship experience (cooperative education) records of vocational technical students.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>34. Evaluating vocational technical students’ internship (cooperative education) experiences with business and industry.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>35. Instructing students in the principles and practices of internship experiences (cooperative education) in vocational technical education.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>36. Preparing on-site supervisors who will be working with students in vocational technical education internships.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
</tbody>
</table>

D. AREA: CURRICULUM DEVELOPMENT IN VOCATIONAL TECHNICAL EDUCATION

<table>
<thead>
<tr>
<th>Competency Statement</th>
<th>Importance</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>37. Assisting in the development of a comprehensive vocational technical education curriculum.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>38. Revising an existing vocational technical education curriculum.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>39. Integrating vocational technical education content with the content of general education applicable to the occupational choice of vocational technical students.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>40. Developing a vocational technical curriculum in own subject matter/content area.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>41. Incorporating instructional content from related fields that has implications for vocational technical education.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>42. Working with teacher education/training institutions and subject panels to identify competencies for a vocational technical curriculum in your teaching/specialty area.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
</tbody>
</table>
### Competency Statement

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Importance</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td>Conducting an occupational/job analysis.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>44</td>
<td>Selecting vocational technical education content that relates to the specific competencies in an occupational area.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>45</td>
<td>Reviewing vocational technical curriculum materials to determine quality and relevance of the curriculum content.</td>
<td>5 4 3 2 1 0</td>
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</tr>
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</table>

### E. AREA: FACILITIES AND EQUIPMENT IN VOCATIONAL TECHNICAL EDUCATION

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Importance</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>Compiling a list of vocational technical education consumable supplies needed for the school year.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>47</td>
<td>Identifying new vocational technical education tools and equipment needed for the school year.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>48</td>
<td>Preparing a capital outlay budget proposal for vocational technical education program.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>49</td>
<td>Preparing an operational budget proposal for a vocational technical education program.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>50</td>
<td>Preparing purchase requests of vocational technical equipment and supplies for approval.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>51</td>
<td>Designing a system for determining and collecting student fees for consumable vocational technical education supplies.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>52</td>
<td>Providing data for vocational technical education reports required by the Ministry of Education, inspectorate division.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>53</td>
<td>Providing safety measures for vocational technical education students using hazardous equipment/materials.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>54</td>
<td>Formulating with students acceptable standards of behaviour in vocational technical education classrooms and laboratories/ workshops.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>55</td>
<td>Maintaining an inventory of vocational technical education tools, supplies, and equipment.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
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### Perceived Importance Scale:

- 5 = of very high importance
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<tr>
<th>Competency Statement</th>
<th>Importance</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>56. Designing a system for repairing and servicing vocational technical education tools and equipment.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>57. Providing for the storage and security of vocational technical education supplies, tools, and equipment.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>58. Designing student check-out procedures for vocational technical education laboratory/workshop equipment, tools, and supplies.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>59. Directing students in a system for cleaning and maintaining the vocational technical education laboratory/workshop.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>60. Arranging layout of the vocational technical education laboratory/workshop to simulate the occupational workplace environment.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>61. Formulating a policy for use of the vocational technical education facilities and equipment by other school personnel and groups outside the school.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>62. Providing for the first aid needs of vocational technical education students.</td>
<td>5 4 3 2 1 0</td>
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</table>

### F. AREA: PLANNING AND EXECUTING VOCATIONAL TECHNICAL EDUCATION INSTRUCTION

<table>
<thead>
<tr>
<th>Competency Statement</th>
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<th>Performance</th>
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</thead>
<tbody>
<tr>
<td>63. Stating vocational technical instructional objectives in student performance terms.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>64. Classifying vocational technical instructional objectives into cognitive, psychomotor, and affective domains.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>65. Using audio and visual equipment appropriate for a vocational technical lesson.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>66. Applying vocational technical education instructional techniques, materials, and learning tools appropriate for the lesson objective.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>67. Identifying sites for field trips that provide learning environments.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
</tbody>
</table>
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### Competency Statement

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<tr>
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<th>Importance</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>68. Developing opportunities for vocational technical students to observe and analyze a variety of occupational work facilities.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>69. Demonstrating competency in using a variety of teaching methods in vocational technical education such as problem-solving, simulations, discovery, role play, discussion, projects.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>70. Demonstrating ability to communicate to vocational technical students contemporary trends and issues in the content/specialty area.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>71. Creating an environment that facilitates learning of vocational technical subjects.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>72. Sequencing vocational technical instructional units (scheme of work) to enhance student learning.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>73. Adapting instructional activities and materials to enhance achievement of vocational technical education program goals and objectives.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>74. Developing instructional materials and strategies which adequately support vocational technical education programs when such materials are needed.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>75. Incorporating current educational research and development findings on student learning into vocational technical instructional practices.</td>
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<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>76. Developing a lesson plan for a vocational technical instructional unit.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>77. Designing assessment instruments to measure vocational technical students' progress.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>78. Demonstrating identified performance competencies to vocational technical students.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>79. Performing daily vocational technical instructional tasks with minimal supervision.</td>
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<tbody>
<tr>
<td>G. AREA: CAREER GUIDANCE FOR VOCATIONAL EDUCATION STUDENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80. Disseminating occupational/career information to vocational technical students.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>81. Interpreting occupational/career information to vocational technical students.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>82. Assessing vocational technical students aptitude/ability for occupations available in Swaziland.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>83. Providing vocational technical education information to all students.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>84. Providing services needed to assist vocational technical students in making the transition from school to employment.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>85. Providing services needed to assist vocational technical students in making a transition from secondary/high school vocational technical education to the post-secondary/college/university level.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>86. Preparing vocational technical students to transfer vocational technical competencies from one occupation to another.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>87. Guiding vocational technical students to develop decision making skills, self-awareness, interpersonal skills, and effective communication with employers/clients.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>88. Directing vocational technical students to relevant literature and agencies outside the school that provide information on specific aspects of different occupations.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>89. Guiding vocational technical students in discussing their own occupational/career aspirations.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>90. Conducting home visitations to assess vocational technical students self-employment career opportunities.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
</tbody>
</table>
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**Competency Statement**

91. Conducting individual conferences with vocational technical students on career aspirations and job opportunities.  
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

92. Conducting group conferences with vocational technical students on career aspirations and job opportunities.  
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

93. Interpreting occupational test results to vocational technical students.  
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

94. Establishing communication channels for information exchange and cooperation with career guidance school personnel.  
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

95. Providing career guidance school personnel with vocational technical student performance data.  
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

96. Collaborating with the Ministry of Education, Educational Testing, Guidance, and Psychological Services for the administration of aptitude tests to vocational technical students.  
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

97. Guiding vocational technical students in best describing their marketable/saleable skills.  
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

98. Writing letters of recommendation for jobs/college/university/placement for vocational technical students.  
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

99. Instructing vocational technical students in securing and completing applications for jobs, scholarships, or admission to college/university.  
   Importance: 5 4 3 2 1 0  
   Performance: 5 4 3 2 1 0

**H. AREA: VOCATIONAL TECHNICAL STUDENT ORGANIZATION/CLUB**

100. Securing internal and external support for the vocational technical student organization/club.  
    Importance: 5 4 3 2 1 0  
    Performance: 5 4 3 2 1 0

101. Integrating vocational technical student organization activities into the vocational technical instructional program.  
    Importance: 5 4 3 2 1 0  
    Performance: 5 4 3 2 1 0

102. Explaining objectives and expected outcomes of vocational technical student organization/club.  
    Importance: 5 4 3 2 1 0  
    Performance: 5 4 3 2 1 0

243
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Competency Statement

103. Establishing a vocational technical student organization/club with a constitution and by-laws.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0

104. Recruiting members for the vocational technical student organization/club.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0

105. Establishing a vocational technical student organization/club contest awards programs.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0

106. Preparing vocational technical students to participate in district/regional, national, and international activities and contests.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0

107. Guiding vocational technical student organization/club officers in developing a yearly program of activities.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0

108. Advertising the activities of the vocational technical student organization/club.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0

109. Evaluating the outcomes of a vocational technical student organization/club.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0

I. AREA: VOCATIONAL TECHNICAL EDUCATION PROGRAM EVALUATION

110. Specifying evaluation techniques and criteria which determine satisfaction of minimum as well as desirable student performance at the completion of the learning activities.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0

111. Outlining the procedures used to evaluate a vocational technical education program.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0

112. Conducting a student follow-up evaluation as a part of a vocational technical education program.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0

113. Using vocational technical evaluation techniques and instruments designed to diagnose vocational technical students' academic, occupational, and social development needs.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0

114. Evaluating vocational technical instruction using a variety of techniques to determine the effectiveness in helping vocational technical students attain occupational goals.

Importance  Performance
5 4 3 2 1 0  5 4 3 2 1 0
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Competency Statement

115. Establishing criteria for evaluating the appropriateness of the vocational technical education program.
   Importance: 5 4 3 2 1 0
   Performance: 5 4 3 2 1 0

116. Providing constructive input to the inspectorate division of the Ministry of Education in evaluating school vocational technical education programs.
   Importance: 5 4 3 2 1 0
   Performance: 5 4 3 2 1 0

117. Evaluating relevance of research findings to vocational technical education in Swaziland.
   Importance: 5 4 3 2 1 0
   Performance: 5 4 3 2 1 0

118. Assessing students’ performances of competencies as the primary source of evidence of skill acquisition.
   Importance: 5 4 3 2 1 0
   Performance: 5 4 3 2 1 0

119. Determining vocational technical students’ rates of progress through the vocational technical education program by demonstrated competency rather than by time or course completion.
   Importance: 5 4 3 2 1 0
   Performance: 5 4 3 2 1 0

120. Evaluating vocational technical students’ interests and abilities to pursue a chosen occupation.
   Importance: 5 4 3 2 1 0
   Performance: 5 4 3 2 1 0

121. Constructing vocational technical education student evaluation instruments/grads sheets.
   Importance: 5 4 3 2 1 0
   Performance: 5 4 3 2 1 0

J. AREA: PROFESSIONAL DEVELOPMENT IN VOCATIONAL TECHNICAL EDUCATION

122. Developing a personal teaching style consistent with your belief and the Swaziland government’s philosophy/principles of vocational technical education.
   Importance: 5 4 3 2 1 0
   Performance: 5 4 3 2 1 0

123. Using appropriate channels to keep up to date with professional developments in vocational technical education.
   Importance: 5 4 3 2 1 0
   Performance: 5 4 3 2 1 0

124. Responding to changing trends within the vocational technical education profession.
   Importance: 5 4 3 2 1 0
   Performance: 5 4 3 2 1 0

125. Assessing individual professional growth plans in the vocational technical education profession.
   Importance: 5 4 3 2 1 0
   Performance: 5 4 3 2 1 0

245
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<tr>
<th>Competency Statement</th>
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<th>Performance</th>
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</thead>
<tbody>
<tr>
<td>126. Determining services and activities to be provided by a vocational technical</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
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<tr>
<td>education professional organization.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>127. Showing respect for individuals in the vocational technical education profession regardless of differences of opinion.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>128. Supervising specially funded programs/research projects.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>129. Participating in activities designed to update professional competencies in vocational technical education.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>130. Developing skills to conduct research projects in vocational technical education.</td>
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<td>5 4 3 2 1 0</td>
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</tbody>
</table>

### K. AREA: INTERPERSONAL RELATIONS IN A VOCATIONAL TECHNICAL EDUCATION ENVIRONMENT

131. Expressing honesty in dealing with the feelings and opinions of vocational technical teachers and students. | 5 4 3 2 1 0| 5 4 3 2 1 0 |
132. Displaying dependability in relationships with vocational technical students and teachers. | 5 4 3 2 1 0| 5 4 3 2 1 0 |
133. Demonstrating professional integrity in relationships with vocational technical teachers and students. | 5 4 3 2 1 0| 5 4 3 2 1 0 |
134. Demonstrating self-control in dealing with vocational technical students and teachers. | 5 4 3 2 1 0| 5 4 3 2 1 0 |
135. Recognizing tribal/ethnic/nationality differences among vocational technical students and teachers. | 5 4 3 2 1 0| 5 4 3 2 1 0 |
136. Respecting religious preferences and commitments of vocational technical teachers and students. | 5 4 3 2 1 0| 5 4 3 2 1 0 |
137. Expressing degree of worthiness of other vocational technical teachers and students in other vocational technical programs. | 5 4 3 2 1 0| 5 4 3 2 1 0 |
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<th>Performance</th>
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<tbody>
<tr>
<td>138. Expressing degree of worthiness of teachers and students in general education.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>139. Participating in group discussions with vocational technical teachers.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>140. Improving the climate to enhance interpersonal relationships among vocational technical teachers.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>141. Demonstrating behaviour worthy of other vocational technical teachers' confidence.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>142. Demonstrating a degree of trust among vocational technical teachers.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>143. Exhibiting decision making ability among vocational technical teachers.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>144. Inspiring change in professional habits of vocational technical teachers.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>145. Demonstrating a leadership role as a vocational technical teacher.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>146. Handling conflict resolutions among vocational technical education teachers.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>147. Stimulating vocational technical education teachers through professional discussions</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>148. Sharing concern for lack of student interest in vocational technical education with other teachers.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>149. Inspiring vocational technical teachers with positive ideas on vocational technical education.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>150. Demonstrating sincerity in relationships with vocational technical students.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>151. Treating vocational technical students equally regardless of sex.</td>
<td>5 4 3 2 1 0</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>152. Expressing sensitiveness in relationships in dealing with vocational technical students' performances.</td>
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Thank you very much for your participation and contributions.
APPENDIX C

LETTER TO PILOT TEST PARTICIPANTS
Dear Colleague,

We appreciate your willingness to help us on this request. As explained to you, Comfort Mndebele is conducting a research project as part of his Ph.D. requirements at Virginia Polytechnic Institute and State University in Virginia, U.S.A. As a pilot test of his research questionnaire, we would like for you to complete this questionnaire as if you had received it in the mail. The major purpose of pilot testing this questionnaire is to be sure the directions are clear and that respondents can provide the information requested.

Please do the following as you complete the questionnaire:

1. If a competency statement is unclear, place a question mark (?) by or near the statement.

2. If you come to a word you do not understand, circle it.

At the end of the questionnaire, please write down the time in minutes that it took you to complete the questionnaire.

Again, your participation in this stage of the study is crucial to its success. We believe that once the study is completed, the results will have a valuable impact on the future preparation and in-service of pre-vocational [vocational technical] teachers of agriculture, commercial, home economics, and technical subjects in Swaziland.

Sincerely,

Comfort B. Mndebele  
RESEARCHER and  
GRADUATE STUDENT

John R. Crunkilton, Ph.D.  
PROFESSOR & ADVISOR TO  
COMFORT B. MNDEBELE
APPENDIX D

LETTER TO STUDY SAMPLE
Dear Colleague,

May I extend my sincere congratulations on your being part of the sample of teachers participating in a research project focusing on professional pre-vocational [vocational technical] education competencies needed by pre-vocational [vocational technical] teachers of either agriculture, commercial, home economics, or technical subjects. The classroom teacher plays an important role in improving the quality of teachers by providing information on what happens in the classroom and what skills are needed to be an effective teacher. In this research project, we are identifying professional pre-vocational [vocational technical] education competencies (knowledge, skills and attitudes) which are perceived as important by practising professionals in the classroom, and also determine your perceived ability to perform these competencies. This is not a teacher evaluation effort but a research project. Your views regarding these competencies will assist us in identifying competencies that need to be incorporated into our teacher education programmes and redressed through professional in-service education for the improvement of our profession.

You can contribute to this research project by following the directions on the enclosed questionnaire, completing and returning it in the enclosed, addressed and postage-paid envelope. Although you are asked to indicate your name and that of your school, your responses will be treated in the strictest of confidence. Your name and school address are essential in case follow-up procedures are required. The final results of the research project will not identify the name of the school, nor your name. The results will be reported in summary form.

Under separate cover, this letter is copied to the office of your Headmaster/Headmistress for his/her information.

This research project is funded by the Government of Swaziland and USAID as part of my doctoral programme at Virginia Polytechnic Institute and State University (USA), hence the endorsement by my major advisor and professor.

Thank you for your cooperation in this research project. The contribution of your valuable time, thoughtful deliberation on the statements, and speedy return will help make this study a success and indeed benefit those engaged in the profession of teaching either agricultural, commercial, home economics, or technical subjects. Please, be kind enough to return the completed questionnaire by APRIL 30TH, 1993.

Sincerely

Comfort B. Mnadebele
RESEARCHER & GRADUATE STUDENT

John R. Crunkilton, Ph.D.
PROFESSOR & MAJOR ADVISOR

cc. : Headmaster/Headmistress
APPENDIX E

FOLLOW-UP LETTER
Dear Colleague,

Reminder

Once again, we congratulate you on being part of the sample of teachers in the professional pre-vocational [vocational technical] education competencies for Swaziland agricultural, commercial, home economics, and technical teachers research project. We value your opinion on the questionnaire we sent you last term. Hence, the purpose of this letter is to kindly remind you as our research participant to complete and send back to us the questionnaire sent to you last term dated March 31st, 1993.

As of April 30th, 1993, a large number of the questionnaires mailed out earlier have been completed and returned to us and we are awaiting the return of the remaining ones before we proceed to the next phase of the project. We hope you will join your fellow colleagues who have already responded by completing and sending back to us the questionnaire. Your doing so will be much appreciated. If you have misplaced the questionnaire and you can not find it, indicate by sending back to us this letter and we will be more than happy to send you another copy. If you will have mailed the questionnaire by the time you receive this letter, please ignore this reminder. Otherwise, please be kind enough to return the completed questionnaire by May 30th, 1993.

Sincerely

Comfort B. Mnébele
RESEARCHER & GRADUATE STUDENT

John R. Crunkilton, Ph.D.
PROFESSOR & MAJOR ADVISOR.
APPENDIX F

DISCREPANCY VALUES FOR IMPORTANCE AND PERFORMANCE OF PROFESSIONAL VOCATIONAL TECHNICAL EDUCATION COMPETENCIES FOR SWAZILAND TEACHERS OF AGRICULTURAL COMMERCIAL, HOME ECONOMICS, AND TECHNICAL STUDIES
Discrepancy Values for Importance and Performance of Professional Vocational Technical Education Competencies for Swaziland Teachers of Agricultural, Commercial, Home Economics, and Technical Studies

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Competency Area: School and Business-Industry Relations

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| #65 | 4.32 | 3.63 | .74 | 2.98 | 7 | 4.25 | 2.94 | 1.44 | 1.31 | 5.57 | 3 | 4.63 | 3.23 | .70 | 1.97 | .70 | 3.24 | 4 | 4.08 | 2.72 | .61 | 1.06 | .59 | 1.18 | 12 |
| #66 | 4.46 | 3.72 | .71 | 3.17 | 5.5 | 4.33 | 2.99 | 1.44 | 1.24 | 5.37 | 5 | 4.23 | 2.82 | .92 | 1.02 | .51 | 2.21 | 17 | 4.21 | 3.85 | .80 | 1.04 | .36 | 1.32 | 8 |
| #67 | 4.39 | 2.72 | .78 | 2.81 | 12 | 4.49 | 3.32 | 1.77 | 5.25 | 6 | 4.40 | 2.84 | .70 | 1.33 | .55 | 2.42 | 12.5 | 4.00 | 2.31 | .99 | 1.51 | .69 | 2.76 | 1 |
| #68 | 4.07 | 2.26 | .71 | 2.89 | 5.5 | 4.20 | 3.09 | 1.11 | 4.66 | 9.5 | 4.30 | 3.55 | .71 | 9.7 | .75 | 3.23 | 2.5 | 3.82 | 3.28 | .54 | 2.06 | 3 |
| #69 | 4.30 | 2.63 | .96 | 2.88 | 8 | 4.07 | 2.94 | 1.13 | 4.60 | 8 | 4.32 | 2.69 | .83 | 1.36 | .66 | 2.87 | 5.5 | 4.12 | 2.64 | .89 | 1.11 | .49 | 2.02 | 5 |
| #70 | 3.88 | 3.23 | .85 | 2.52 | 9.3 | 3.79 | 2.74 | 1.03 | 3.98 | 14 | 3.78 | 3.18 | .96 | 1.22 | .60 | 2.27 | 8.3 | 3.56 | 3.26 | .94 | 1.19 | .30 | 1.07 | 11 |
| #71 | 4.30 | 3.52 | .63 | 4.10 | 1 | 4.17 | 3.02 | 1.15 | 4.80 | 7 | 4.23 | 2.55 | .87 | 1.18 | .60 | 2.55 | 8.3 | 4.07 | 3.54 | .89 | 1.12 | .51 | 2.07 | 4 |

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**Competency Area: Career Guidance**

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| #81  | 4.02 .79 | 3.32 1.04 | .77 3.15 15.3 | 4.07 .82 | 2.81 1.36 | 1.28 5.24 4 | 4.20 .92 | 3.40 1.06 | .80 3.36 9.5 | 3.27 .82 | 3.38 1.07 | .59 2.54 6 |
| #82  | 4.21 .70 | 3.25 1.10 | .98 4.13 4.25 | 4.34 .79 | 3.04 1.14 | 1.30 5.64 3 | 4.33 .74 | 2.46 1.04 | .89 3.47 4 | 3.82 .97 | 3.36 1.08 | .49 1.87 10 |
| #83  | 3.81 1.03 | 2.00 1.22 | .81 3.09 14 | 4.19 .98 | 3.00 1.26 | 1.19 4.99 8 | 4.33 .90 | 3.62 1.14 | .71 3.07 15 | 2.75 .97 | 2.43 1.11 | .32 1.20 18.5 |
| #84  | 4.30 1.13 | 3.11 1.22 | 1.19 5.12 1 | 4.30 .80 | 2.85 1.22 | 1.45 6.24 1 | 4.44 .99 | 3.62 1.19 | .82 3.64 6.33 | 3.70 .98 | 2.30 1.10 | .40 1.48 15.3 |
| #85  | 3.41 .71 | 3.18 1.23 | 1.00 4.18 3 | 3.41 .86 | 3.00 1.31 | 1.25 5.39 5 | 4.36 .78 | 2.72 1.30 | .64 2.79 18 | 3.85 .98 | 2.20 1.36 | .65 2.50 2.33 |
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| #101  | 3.53 / 2.77     | 3.90 / 2.49     | 1.09 / 3.90         | 3              |

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*Comp = Competency: Competency statement as shown in Appendix B

*Imp = Importance Scale: 5 = of very high importance; 4 = of high importance; 3 = of medium importance; 2 = of low importance; 1 = of very low importance; 0 = of no importance

*Perf = Performance Scale: 5 = of excellent ability to perform; 4 = of very good ability to perform; 3 = of good ability to perform; 2 = of fair ability to perform; 1 = of poor ability to perform; 0 = of no ability to perform

*Disc = Discrepancy

*Wt. Value = Weighted value (importance - performance) x importance = weighted value
VITA

Comfort Baphumuze Sikhumbuzo Mnudebele, son and grandson of Rev. Abner P. Mnudebele and Rev. Zakaza J. Mnudebele, respectively, was born December 22, 1951, in Nhlangano, Swaziland. His primary education was completed in several schools. In 1972 he was graduated from Mankayane High School. Immediately after high school, Comfort enrolled in a Bible study program and completed a Diploma (Associate Degree) in Child Evangelism from Child Evangelism Fellowship Institute, Grand Rapids, Michigan. Upon completing his Bible studies, he enrolled in a postal clerk course at the Swaziland Staff Training Institute (Swaziland Institute of Management and Public Administration) and completed the course in December, 1973, and was immediately employed by the Department of Posts and Telecommunications (Posts and Telecommunications Corporation) as a Postal Clerk. He received his Diploma (Associate Degree) in Agriculture from the then University of Botswana, Lesotho and Swaziland (University of Swaziland) in 1976. He received a B.S. degree in Agricultural Education from West Virginia University in 1981 and a M.A. in Secondary Education and M.S. in Agricultural Education from West Virginia University in 1983 and 1984, respectively.

His professional experiences include 12 years serving on the faculty at the University of Swaziland, and three years as a technical assistant with the University of Swaziland. Comfort's professional and honorary affiliations include the American Vocational Association, the National Association of Industrial and Technical Teacher Educators, the American Vocational
Education Research Association, Omicron Tau Theta and the Swaziland Home Economics Teachers Association.

The requirements for the doctoral degree in Vocational and Technical Education were completed during his faculty study leave from the University of Swaziland.

[Signature]

Comfort B. S. Mndebele