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A comparison of pedagogical classroom instructional problems perceived by beginning and experienced Michigan vocational production agriculture teachers

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A COMPARISON OF PEDAGOGICAL CLASSROOM INSTRUCTIONAL PROBLEMS PERCEIVED BY BEGINNING AND EXPERIENCED MICHIGAN VOCATIONAL PRODUCTION AGRICULTURE TEACHERS

By

Babatunde Kolade

A DISSERTATION

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ABSTRACT

A COMPARISON OF PEDAGOGICAL CLASSROOM INSTRUCTIONAL PROBLEMS PERCEIVED BY BEGINNING AND EXPERIENCED MICHIGAN VOCATIONAL PRODUCTION AGRICULTURE TEACHERS

By

Babatunde Kolade

The purpose of this study was to identify and compare pedagogical classroom instructional problems perceived by beginning and experienced Michigan vocational production agriculture teachers.

The study investigated the problems of beginning and experienced teachers, areas of classroom instruction causing major problems for the teachers, differences in the problems between beginning and experienced teachers and differences among the teachers with respect to the problems they perceived in some areas of classroom instruction that are attributed to teachers' characteristics.

Fifty-two questionnaire forms were mailed to both beginning and experienced Michigan vocational production agriculture teachers and 48 questionnaire forms were returned by the respondents. Descriptive statistics -- frequencies, percentages, means and standard deviations; chi-square; and t-tests -- were used in analyzing the data.

The major conclusions of this study were:

1. Neither beginning nor experienced teachers perceived major levels of difficulty in any of the seven general areas of classroom instruction.
2. Both groups of teachers perceived moderate levels of difficulty in the general area of Planning for Instruction.
3. Beginning and experienced teachers perceived minor levels of difficulty in the general area of Establishing Classroom Climate.

4. With the exception of two areas, Planning for Instruction and Establishing Classroom Climate, the beginning teachers perceived greater levels of difficulty than experienced teachers.

5. Beginning teachers perceived a significantly higher degree of difficulty than experienced teachers in four pedagogical classroom instructional areas: Establishing Classroom Climate, Selecting and Using Instructional Materials/Aids, FFA and SOEP.

6. There were significant differences between beginning and experienced teachers' perceptions of level of difficulty in only 13 of the 66 (19.7%) specific instructional areas included in the questionnaire.

7. There was a significant difference in the area of Selecting and Using Instructional Materials/Aids for teachers who perceived "non-existent to moderate" administrative support when compared with those teachers who perceived "supportive to very supportive" administrative support. The teachers who received "non-existent to moderate" administrative support perceived relatively more problem when compared with those teachers who received more administrative support.

8. The only pedagogical classroom instructional area in which beginning and experienced teachers had obvious need for pre-service and in-service education respectively, was Planning for Instruction.

DEDICATION

To my parents, Chief and Deaconess Samuel Ogunwale Kolade,

for their encouragement, support and patience

during my study.

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CHAPTER I

INTRODUCTION

In the 1980's, the fact that many vocational agriculture teachers were leaving teaching within a few years in the profession was a major concern of teacher educators in the field. The first year of teaching was regarded as critical to establishment and success in the career of the teacher.[1]

The classroom instructional problems encountered by vocational agriculture teachers were very complex, hence, a need existed to identify these problems. These problems had to be clearly defined so that there could be improvement in teacher preparation programs. Since the teaching tasks of vocational agriculture teachers were varied and complex, it was important that beginning and experienced teachers find means to be successful as teachers in the profession. If their classroom instructional problems could be minimized, there could be an increase in their teaching effectiveness and the overall vocational agriculture program would be more successful. Obviously, there was a need for a realistic or meaningful recognition of the problems and needs of teachers engaged in the implementation of programs of

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[1]Don Priebe and Wallace Fegert, "Problems of Beginning Vocational Agriculture Teachers," Proceedings of the 37th Annual Research Conference in Agricultural Education. Central Region, St. Paul, Minnesota (August 1983):1.

education in vocational agriculture before a program of pre-service or in-service training could be adequately designed to improve the proficiency of teachers.

According to Carter,[1] educators have to constantly update their curriculum and keep current with new trends and practices in their fields to keep pace with the vast changes in education and society. If vocational agriculture programs were to meet adequately the changing demands for education in agriculture, the classroom instructional problems encountered by beginning and experienced vocational agriculture teachers had to be correctly identified and minimized.

Statement of the Problem

The concerns of teacher educators and administrators regarding vocational agriculture programs in secondary schools have served as the basis to study the nature and extent of the pedagogical classroom instructional problems of Michigan vocational production agriculture teachers. This study was designed to deal with a comparison of pedagogical classroom instructional problems perceived by beginning and experienced Michigan vocational production agriculture teachers.

Ogundipe[2] indicated in her study that the problems of new and returning vocational agriculture teachers in Michigan were identified

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[1]Richard I. Carter, "Professional Competencies Needed and Possessed by Beginning Teacher Educators in Agricultural Education" (Ph.D. dissertation, Iowa State University, 1976), p. 1.

[2]Rebecca M. Ogundipe, "A Study of the Self-Perceived Professional Education Competencies Needed by Vocational Agriculture Teachers in Michigan" (Ph.D. dissertation, Michigan State University, 1980), p. 2.

as one of the highest priority concerns of the Agricultural and Extension Education faculty at Michigan State University. In past years much attention had been given to the in-service education needs of vocational agriculture teachers.

To be able to adequately design a program of pre-service and in-service training to improve the proficiencies of vocational agriculture teachers, there was a need for a meaningful recognition of the classroom instructional problems of beginning and experienced vocational production agriculture teachers. Shortage of well qualified teachers had been a critical problem to the profession. One factor pertinent to this study was having students in class with little self-motivation.[1] This factor is a potential source of problems for the vocational production agriculture teachers.

The present study, therefore, investigated the following pedagogical classroom instructional areas at the secondary level:

A. Planning for Instruction.

B. Establishing Classroom Climate.

C. Management/Execution of Instruction.

D. Selecting and Using Instructional Materials/Aids.

E. Evaluation of Students' Performance.

F. Future Farmers of America (FFA).

G. Supervised Occupational Experience Program (SOEP).

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[1]Ralph Bender, "Vo-Ag Educators Seek to Increase Numbers and Professionalism," Agricultural Education Magazine (May 1978):51.

Purpose of the Study

The purpose of this study was to identify and compare pedagogical classroom instructional problems perceived by beginning and experienced Michigan vocational production agriculture teachers.

Objectives of the Study

The specific objectives of this study were:

1. To identify problems perceived by beginning and experienced Michigan vocational production agriculture teachers in implementing classroom instructional programs of vocational production agriculture.
2. To determine whether problems perceived by beginning Michigan vocational production agriculture teachers were different from those perceived by experienced teachers.
3. To ascertain those classroom instructional areas of the vocational production agriculture program perceived as causing major problems for beginning and experienced Michigan vocational production agriculture teachers.
4. To determine whether problems perceived by beginning and experienced Michigan vocational production agriculture teachers were influenced by the following: (a) length of teaching experience, (b) local building administrative support as perceived by teachers, (c) teachers' other responsibilities, and (d) students' classification (rural or non-rural).

Importance of the Study

There had been shortages of vocational agriculture teachers in the United States and there was ongoing research to determine why they were leaving the profession. The fact that many vocational agriculture teachers were leaving the profession has been of great concern to

educators.[1] Many studies point out that beginning vocational agriculture teachers encounter problems that discourage them from remaining in teaching. According to Kahler[2], beginning teachers are discouraged with the teaching profession as a result of the problems they encounter during their first year of teaching, hence they leave the teaching profession. If problems of vocational production agriculture teachers are identified, they can serve as a basis for developing improved pre-service and in-service teacher preparation programs. These improved programs should reduce the nature and scope of the problems encountered, resulting in a lower attrition rate.

This study could provide very useful information to teacher educators in designing improved teacher education programs. Teacher educators need to know the classroom instructional problems of beginning and experienced vocational agriculture teachers to provide effective pre-service training programs for them. A study conducted by Ogundipe[3] indicated that teacher education institutions in Michigan provided very effective pre-service education for production agriculture teachers in previous years. Shill and Handley[4] indicated

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[1]William S. Farrington, "Problems of Beginning Vocational Agriculture Teachers in the Southern Region," Southern Research Conference in Agricultural Education (1980):2.

[2]Alan A. Kahler, Organizational and Instructional Problems of Beginning Teachers of Vocational Agriculture (Ames, Ia.: The Department of Agricultural Education, Iowa State University, 1974), p. 1.

[3]Ogundipe, "A Study of the Self-Perceived Professional Education Competencies Needed," p. 5.

[4]James F. Shill and Herbert M. Handley, "Additional Competency Development: A Challenge for Teacher Education," Agricultural Education Magazine Vol. 47, No. 9 (March 1975):213.

that pre-service education programs should include increased experiences for the participants or teachers to work with the students. "The pre-service program for prospective teachers should continue to provide . . . a balance of activities and experiences with sufficient flexibility . . . to adjust to emerging changes in the program."[1]

Supervision of beginning teachers is very important. Hence, supervision must be planned to assist the beginning teachers with solutions to their problems. A question was posited at the New Mexico State Joint Staff Meeting as to what could be done to solve the problem of teachers. Vaughn and Vaughn[2] suggested that ". . . one solution might be the development of a publication which the teacher would always have on hand and which would provide direction and guidance during the first year of teaching."

Herr[3] indicated that young teachers of agriculture during their student teaching experience and during the first years of teaching are not given adequate supervision. A study of this nature would enable the supervisor to know what to look for when supervising beginning teachers.

These studies indicate the need for improved teacher education programs. The results of this study should provide insight into the

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[1]Hollis E. Todd and Ralph J. Woodin, "A Role Analysis of the Beginning Teacher of Vocational Agriculture in Ohio," Research Series in Agricultural Education (September 1966):5.

[2]Paul R. Vaughn and Roscoe C. Vaughn, "The First Summer - Critical for Vo-Ag Teachers," Agricultural Education Magazine Vol. 52, No. 12 (June 1979):275.

[3]Robert D. Herr, "Teacher Preparation - Tell It Like It Is," Agricultural Education Magazine Vol. 49, No. 5 (November 1976):102.

specific pedagogical needs of Michigan vocational production agriculture teachers.

In-service education programs are very essential and should be planned to meet the needs of beginning and experienced vocational agriculture teachers. If some of their problems are recognized and solved, they will be able to work more effectively with their students. The in-service program which had been a "New Teacher Program" in Arizona was concerned with the difficulties of beginning teachers:

> The primary intent of the new teacher program is concerned with helping the beginning teacher adjust to a new job and assisting him to minimize the common pitfalls and difficulties encountered by many new teachers. Particular attention is paid to helping these teachers improve their planning ability in an attempt to strengthen the overall instructional program and teaching methods.[1]

Todd and Woodin agreed that "A program of teacher education should aim to produce high quality vocational agriculture teachers."[2] Kane[3] mentioned that there was a need for a program designed to help young teachers handle teaching effectively.

Hutson[4] conducted a study that identified problems of beginning vocational agriculture teachers that suggested areas of emphasis on planning the professional program of in-service education training.

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[1]Phillip R. Zurbick and Floyd G. McCormick, "In-Service Education for the Beginning Teacher," Agricultural Education Magazine Vol. 45, No. 4 (October 1972):78.

[2]Todd and Woodin, "A Role Analysis of the Beginning Teacher," p. 8.

[3]Pearl R. Kane, "A Teacher Institute for Beginning Teachers," The American Educational Research Association Annual Meeting New Orleans, Louisiana (April 1984):2.

[4]Denver B. Hutson, "A Study of the Professional Problems Encountered by Beginning Teachers of Vocational Agriculture in Arkansas." (Ph.D. dissertation, University of Missouri, 1953), pp. 7,8.

Guiler[1] from Ohio State University indicated that it was necessary for all new teachers of vocational agriculture in Ohio to participate in an intensive in-service education program.

According to Sunderhaus,[2] ". . . in-service education allows pertinent problems and concerns to be given immediate attention and stressed that in-service teacher education is essential for the improvement of agriculture education programs."

This study also should provide a focus for in-service education programs in Michigan. Perceived problems of Michigan vocational production agriculture teachers would necessitate establishing programs that would result in reduction or elimination of these problem areas.

Definition of Terms

The following terms and definitions will assist in interpreting this study:

1. Michigan vocational production agriculture teachers: Teachers at the secondary level who teach Michigan students how to produce, maintain, buy, and sell agricultural products for career purposes. These teachers would also provide students with leadership and personal development activities.[3]

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[1]Gilbert S. Guiler, "How First-Year Teachers Perceive Their Abilities," Agricultural Education Magazine Vol 41, No. 12 (June 1970):313. (Ph.D. dissertation, University of Missouri, 1953), pp. 7,8.

[2]Tara L. Sunderhaus, "Problems and Concerns of Vocational Agriculture Instructors in Indiana" (M.S. thesis, Iowa State University, 1984), p. 16.

[3]Larry D. Powers, "A Study of the Perceptions of the Professional Roles Held by Two Selected Groups of Vocational Agriculture Teachers in Michigan" (Ph.D. dissertation, Michigan State University, 1985), p. 11.

2. Vocational agriculture teachers: Teachers of agribusiness and natural resources vocational education in secondary schools.

3. Pedagogical problems: The conditions in a classroom that result from the use of inappropriate teaching activities or the absence of desirable teaching activities that cause teacher concern or difficulty in establishing or maintaining a desirable learning environment. These problems are not directly related to the level of technical competence of the teacher.

4. Beginning vocational agriculture teachers: Vocational production agriculture teachers with less than five years of teaching experience in a secondary school (including the year the study was conducted).

5. Experienced vocational agriculture teachers: Vocational production agriculture teachers with five or more years of teaching experience in a secondary school (including the year the study was conducted).

Assumptions of the Study

The following assumptions were made for the purpose of this study:

1. It is assumed that if a teacher responds with some uncertainty, this teacher is perceiving some problem. If not, this teacher would more clearly indicate that a given item is a problem or not a problem.
2. It is assumed that positive statements made on the questionnaire are of little or no problem for an effective teacher.

Limitations of the Study

The study was limited to Michigan comprehensive high schools. This study has the following limitations:

1. This study was concerned with beginning and experienced Michigan vocational production agriculture teachers.

2. The classroom instructional problems were limited to those items listed on the instrument.

3. This study did not address special needs students.

4. The study was limited to teacher perceptions of problems as indicated by their responses to a set of statements. There were no independent observations to validate the teachers' own perceptions.

Research Questions

The research questions were based on the four specific objectives of the study. The following research questions were used to guide the collection and analysis of data:

1. What were the problems perceived by beginning and experienced Michigan vocational production agriculture teachers in implementing classroom instructional programs of vocational production agriculture?

2. Which areas of the classroom instruction of the vocational production agriculture program were perceived to cause major problems for beginning and experienced Michigan vocational production agriculture teachers?

3. Were the problems perceived by beginning Michigan vocational production agriculture teachers different from those perceived by experienced teachers?

4. Were there differences among Michigan vocational production agriculture teachers with respect to the problems they perceived in some areas of classroom instruction that could be attributed to their length of teaching experience, local administrative support as perceived by the teachers, teachers' other responsibilities, and students' classification (rural or non-rural)?

Hypotheses

In order to answer the inferential questions (numbers 3 and 4 above), the following hypotheses were tested:

Ha^1: There were significant differences between beginning and experienced Michigan vocational production agriculture teachers with respect to the problems they perceived in implementing classroom instructional programs of vocational production agriculture.

Ha^2: There were significant differences among Michigan vocational production agriculture teachers with respect to the problems they perceived in some areas of classroom instruction that could be attributed to their length of teaching experience.

Ha^3: There were significant differences between beginning and experienced Michigan vocational production agriculture teachers with respect to the problems they perceived in some areas of classroom instruction that could be attributed to their local building administrative support.

Ha^4: There were significant differences between beginning and experienced Michigan vocational production agriculture teachers with respect to the problems they perceived in some areas of classroom instruction that could be attributed to their responsibilities other than teaching agriculture.

Ha^5: There were significant differences between beginning and experienced Michigan vocational production agriculture teachers with respect to the problems they perceived in some areas of classroom instruction that could be attributed to their students' classification (rural or non-rural).

Summary and Overview

The format for the study has been presented in Chapter I. It covers the Introduction, Statement of the Problem, Purpose of the Study, Objectives of the Study, Importance of the Study, Definition of Terms, Assumptions of the Study, Limitations of the Study, Research Questions and Hypotheses.

In Chapter II, the literature related to the study has been reviewed. In Chapter III, the methods and procedures for planning and conducting the study have been presented. It includes Population

Identification, Sample Selection, Instrument Development, Criteria for Jury Selection, Criteria for Selecting Experienced and Successful Vocational Production Agriculture Teachers, Pilot Testing Procedures, Validity Procedures, Reliability Testing, Data Collection Procedures, Data Analysis and Summary.

In Chapter IV, the Analysis of Data has been presented. Chapter V presented and discussed the Summary, Conclusions and Recommendations for the Michigan Vocational Agricultural Education Program and further research.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

In a democracy, education plays a vital role in guiding youth as they learn to provide leadership for society. The secondary schools in the U.S. are critical to the development of youth in a free democratic society. During the 1980's the American schools had been seriously criticized for not preparing youth for their role in society. Although it was agreed that there were many factors contributing to the problem, the teachers had been the focus of this indictment. They were accused of not being well prepared to fulfill their professional responsibilities. They also had been accused of not adjusting to youth and classroom conditions effectively. The teachers countered this criticism by stating that teacher education programs had neither adequately prepared them for entering the profession nor assisted them in adjusting during their early employment.

Certainly, vocational agriculture teachers had been no exception. Numerous studies had reported a wide variety and scope of problems encountered by vocational agriculture teachers. These problems had a negative effect on the teachers' effectiveness. There were certain factors that impacted on the effectiveness of beginning and experienced vocational agriculture teachers. When surveyed, teachers could cite their perceptions of problems they encountered in implementing programs and teaching activities. The problems of vocational agriculture

teachers developed as a result of many factors. Priebe and Fegert[1] identified societal problems, school structure and governance, the job description of the vocational agriculture teacher, characteristics of the individual teacher, the teacher preparation program, and the nature of the work place as some of the conditions that might contribute to the problems facing teachers. The type of community in which teachers grew up might be a factor in their problems in the classroom. King[2], in a study conducted in 1984, mentioned that instructors who grew up in cities experienced a greater degree of difficulty than instructors who grew up on farms and in rural communities.

Teaching experience could be a factor in the problems encountered by vocational agriculture teachers. According to Miller and Scheid[3], experience in teaching makes the occupation less difficult and as the number of years of experience increases, the difficulties faced by vocational agriculture teachers decrease. Hence, " . . . teachers with more than five years experience perceived themselves as having fewer problems in working with the vocational agriculture program when compared to the first-year teacher group."[4] Other factors that might

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[1]Priebe and Fegert, "Problems of Beginning Vocational Agriculture Teachers," pp. 3,4.

[2]Dennis W. King, "Problems and Concerns of Vocational Agriculture Instructors in Georgia." (M.S. Thesis, Iowa State University, 1984), p. 60.

[3]Wade W. Miller and Carl L. Scheid, "Problems of Beginning Teachers of Vocational Agriculture in Iowa," Journal of the American Association of Teacher Educators in Agriculture Vol. 25, No. 4 (Winter 1984):6.

[4]Ibid., p. 4.

impact teacher effectiveness include organization and management of the classroom instructional program, managing and teaching FFA and SOE programs, maintaining desirable relationships with school administrators, and obtaining adequate facilities and equipment.

All secondary teachers might experience classroom problems in areas such as planning for instruction, establishing classroom climate, management/execution of instruction, selecting and using instructional materials/aids, evaluation of students' performance, FFA and SOE programs. In this study, the researcher focused on identifying problems of both beginning and experienced teachers based on the areas mentioned above. Therefore, the researcher reviewed the literature to identify areas in which recurring problems exist among beginning and experienced secondary teachers.

This chapter reviews the literature in two parts: studies related to Pedagogical Classroom Instructional Problems of Beginning and Experienced Regular Classroom Teachers; and studies related to the Pedagogical Classroom Instructional Problems of Beginning and Experienced Vocational Agriculture Teachers. Both a manual search and an electronic search were conducted. The manual search included the Education Index, Resources in Education and other relevant sources. The electronic search included ERIC, CIJE and Dissertation Abstracts.

Pedagogical Classroom Instructional Problems of Beginning and Experienced Regular Classroom Teachers

Introduction

In order to understand some of the problems perceived by beginning and experienced Michigan vocational production agriculture teachers, it is important to understand the problems of beginning and experienced regular classroom teachers.

Pedagogical Classroom Instructional Problems of Beginning Regular Classroom Teachers

There have been great concerns for the problems encountered by beginning teachers and many studies have been conducted to identify these problems. The early years represent a critical career phase in the occupation of teaching. A study conducted in Victoria, Australia confirmed that "The most traumatic adjustment in the occupational socialisation of teachers occurs during the first year of teaching."[1]

Eight studies were reviewed which reported problems related to discipline in the classroom. Hendrickson and Virant[2] conducted a study in 1978 on the needs for further learning as seen by teachers of secondary school mathematics in northeastern Minnesota. The purpose of

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[1]John McArthur, The First Five Years of Teaching, ERDC Report No. 30, (Canberra, Australia: Australian Government Publishing Service, 1981), p. 49.

[2]Dean Hendrickson and Milt Virant, "A Study of Needs to Further Learning as Seen by Teachers of Secondary School Mathematics," Journal of School Science and Mathematics Vol. LXXVIII, No. 8 (December 1978):660,661

this study was to have the teachers judge how further study of different topics in mathematics and mathematics pedagogy would be of immediate use to them in their existing classroom situations. They found the less experienced teachers were most concerned with the following problems:

1. Discipline and classroom management.
2. Motivation techniques.
3. Providing for individualizing of instruction.
4. Working with slow learners.

Brisco[1] conducted a study in 1972 to identify the professional concerns of first-year secondary teachers in selected public schools in Michigan. The identified concerns were measured with a check list of fifty-one potential concerns in the areas of instruction and personal relationships. The results showed that these teachers were most concerned with the following problems:

1. Dealing with slow learners.
2. Organizing instruction.
3. Having adequate instructional materials.

The problems ranked next in priority were:

1. Classroom management/discipline.
2. Teacher/student relationship.

Mathieson[2] in 1971 reviewed literature on the problems encountered by beginning teachers in the inner city and some possible

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[1]Frederick G. Brisco, "The Professional Concerns of First-Year Secondary Teachers in Selected Michigan Public Schools: A Pilot Study" (Ph.D. dissertation, Michigan State University, 1972), p. 93.

[2]Moira B. Mathieson, Beginning Teachers in the Inner City: A study of the literature on their problems and some possible solutions (Washington, D.C.: ERIC Clearinghouse on Teacher Education, ED 050 028, 1971), p. 20.

solutions. A research project reported in 1965 was concerned with the association between the student teaching locale, the present job locale and the congruence of student teaching and job locale with the perceived difficulties of beginning teachers. The sample included 136 of the 191 first year teachers graduated from Queens College in June 1963. The perceived problem areas reported in descending order of difficulty were:

1. Discipline.
2. Methods of teaching.
3. Evaluation.
4. Classroom routine.
5. Materials and resources.
6. Planning.

Broadbent and Cruikshank[1] conducted a study in 1965 to determine beginning teachers' perceptions of their teaching problems. One hundred and sixty-three graduates teaching in secondary and elementary schools responded to a 117-item questionnaire which was divided into seven areas. The specific problems found to be most significant under each area in the following order of importance were:

1. Methods
   a. Involving many of the children in group discussion.
   b. Not knowing what to do with students who finish early.
   c. Introducing a new topic and obtaining high interest.
   d. Differentiating instruction among the slow, average and gifted children in classes.

2. Evaluation
   a. Not knowing how to evaluate objectives.
   b. Judging children's progress in terms of the teacher's aims and purposes.

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[1]Frank W. Broadbent and Donald R. Cruickshank, The Identification and Analysis of Problems of First Year Teachers (Washington, D.C.: ERIC Document Reproduction Service, ED 013 786, 1965), pp. 235, 236.

3. Discipline
   a. Having students see the relationship between undesirable behavior and the consequences.
   b. Having children maintain quiet while working independently.

4. Routine and Materials
   a. Needing help in selecting instruction materials.
   b. Finding films and filmstrips relating to the area being studied.
   c. Ordering, securing and accounting for supplies and materials.

Broadbent and Cruickshank's identification of teachers' problems was consistent with that of Mathieson.

Wey[1] conducted a study in 1951 to identify difficulties of beginning teachers during their first year of teaching as perceived by the teachers themselves and their principals or supervisors. Ninety-five teachers were included in the sample and complete returns were received from 85 of the teachers and their principals. Beginning teachers and their principals reported a total of 2,537 difficulties, which were classified into 55 specific categories and grouped into eight types of difficulties. Wey reported the following eight difficulties ranked in descending order:

1. Handling problems of pupil control and discipline.
2. Adjusting to deficiencies in school equipment, physical conditions and materials.
3. Adjusting to the teaching assignment.
4. Adapting to the needs, interests and abilities of pupils.
5. Motivating pupil interest and response.
6. Keeping records and making reports.
7. Handling broader aspects of teaching techniques.

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[1]Herbert W. Wey, "Difficulties of Beginning Teachers," The School Review Vol. LIX, No. 1 (January 1951):33-5.

8. Being able to establish and maintain proper relations with supervisors and administrators.

Dropkin and Taylor[1] in 1963 conducted a study on perceived problems of beginning teachers and related factors. The sample of this study consisted of 78 beginning teachers who responded to 70 questionnaire items, categorized into seven professional problem areas. They found out that beginning teachers perceived some difficulty in the following areas:

1. Discipline.
2. Methods of teaching.

Some of their findings on teachers' problems were consistent with Mathieson as well as with Broadbent and Cruickshank.

Lian-Hwang Chiu[2] conducted a study in 1975 to investigate discipline problems as perceived and dealt with by student teachers. The sample for this study consisted of 85 elementary student teachers, 80 females and 5 males. Each of them was assigned to an elementary classroom for 16 weeks under the supervision of a cooperating teacher and a college professor. It was concluded from this study that problems relating to discipline were a major source of anxiety for beginning teachers.

Rodriguez[3] conducted a study in 1964 on the comparison of perceptions held by first year teachers, practice teachers and seniors

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[1]Stanley Dropkin and Marvin Taylor, "Perceived Problems of Beginning Teachers and Related Factors," Teacher Education Quarterly, Vol. XIV, No. 4 (December 1963): 384, 385, 388, 390.

[2]Lian-Hwang Chiu, "The Student Teacher and Discipline Problems," The Journal of Educational Research, Vol. 69, No. 2 (October 1975): 69-72.

[3]Nicolas A. Rodriguez, "A Comparison of the Perceptions First-Year Teachers, Practice Teachers, and Seniors Without Teaching Experience Hold of the Problems Facing Beginning Teachers in Puerto Rico" (Ph.D. dissertation, Michigan State University, 1964), p. 24.

without teaching experience of the problems facing beginning teachers in Puerto Rico. The most generalized problems perceived by the beginning teachers were:

1. Making provision for individualized instruction.
2. Finding effective means of classroom control and discipline.
3. Coping with effective planning, time distribution and motivation.

Rodriguez' findings were consistent with the problems of beginning teachers in the U.S.A.

All of the eight previously cited researchers, Hendrickson and Virant; Brisco; Mathieson; Broadbent and Cruickshank; Wey; Dropkin and Taylor; Chiu; and Rodriguez, found that beginning teachers perceived classroom discipline as a major problem. Each specified this problem as among the top five areas of concern. Additionally, each of these researchers identified providing for individualized instruction and having adequate instructional materials as major problems of beginning teachers.

Two studies reported problems related to teachers' time. Kennedy, Cruickshank, and Myers[1] conducted a study in 1976 to describe and compare the perceived problems of beginning secondary teachers grouped on the basis of school location such as inner city, outer city, suburban and rural. The resultant sample consisted of 400 graduates from the Ohio State University College of Education from January 1971 through June 1973. The majority of these teachers were assumed to be teaching in Ohio secondary schools. A total of 175 questionnaires were

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[1]John J. Kennedy; Donald R. Cruickshank; and Betty Myers, "Problems of Beginning Secondary Teachers in Relation to School Location," The Journal of Education Research Vol. 69, No. 5 (January 1976):171.

completed and used in this study. Kennedy et al reported the following problems as perceived by the teachers:

1. Control of students.
2. Stimulation of students' interest in learning.
3. Availability of time to accomplish professional tasks.

Another study was conducted by Cruickshank, Kennedy and Myers[1] in 1975. The purpose of this study was to identify perceived problems of secondary school teachers. Two samples were involved in the study. The first sample consisted of 81 secondary schools and the second sample consisted of 53 secondary schools. They reported the following problems perceived by beginning teachers:

1. Wanting time to get professional things accomplished.
2. Providing for individual learning differences.
3. Making the classroom interesting.
4. Planning instruction in different ways and for different purposes.

These two studies by Cruickshank, Kennedy and Myers found that beginning teachers perceived time as one of the major problems of concern.

Veenman[2] conducted a study in 1984 on the perceived problems of beginning teachers. Different studies were reviewed both in the U.S. and in other parts of the world. All studies were concerned with beginning teachers. Both a questionnaire and interviews were used for collecting data for this study. Veenman identified the following as the most perceived problems ranked in the order of seriousness:

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[1]Donald R. Cruickshank; John J. Kennedy; and Betty Myers, Perceived Problems of Secondary School Teachers (Washington, D.C.: ERIC Document Reproduction Service, ED 106 264, 1974), pp. 11-14.

[2]Simon Veenman, "Perceived Problems of Beginning Teachers," Review of Educational Research Vol. 54, No. 2 (Summer 1984):153, 156, 158.

1. Classroom discipline.
2. Motivation of students.
3. Dealing with individual differences.
4. Assessing students' work.

Veenman's findings were consistent with the findings of Cruickshank et al. Both studies identified motivating students or stimulating student interest as a major problem perceived by beginning teachers. The principals also viewed the following problems of beginning teachers:

1. Class discipline.
2. Dealing with differences between students.
3. Motivating students.
4. Teaching slow learners.
5. Organizing classes.
6. Assessing student progress.

Pedagogical Classroom Instructional Problems of Experienced Regular Classroom Teachers

Three studies reported the problems of experienced teachers concerning discipline/control and motivating student interest in the classroom. Millman[1] mentioned in his book, "Therapies for School Behavior Problems," that the 1979 Gallup poll of public attitudes toward education identified discipline as the most significant problem facing public school teachers.

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[1]Howard Millman, Therapies for School Behavior Problems, (San Francisco, Ca.: Jossey-Bass Publishers, 1981), p. 9.

Cruickshank et al[1] conducted a study in 1974 on the perceived problems of secondary school teachers. There were two samples involved in the study. The first sample consisted of 70 teachers while the second sample consisted of 310 teachers. The specific problems reported from the findings were:

1. Wanting administrative support.
2. Vitalizing student interest in learning.
3. Control of students in the classroom.
4. Establishing and maintaining rapport with students.
5. Wanting time to get professional things accomplished.

Another study was conducted in 1975 by Cruickshank and Myers[2]. This study involved a review of studies of teachers' problems. The main purpose of the study was to identify the perceived problems of teachers and to help to reduce or eliminate those problems. The report outlined several studies and the instrument used in each. The instrument used for this study contained 117 items reflecting teacher problems reported in studies by Dropkin and Taylor; Smiley and Sprague; and Seymour Lemeshow. These items were classified into categories such as: discipline, evaluation, methods, planning, materials and routines.

There were two stages to this study. The first stage included a national sample of secondary teachers which used the My Biggest

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[1]Donald R. Cruickshank; John J. Kennedy; and Betty Myers, "Perceived Problems of Secondary School Teachers," Journal of Education Research Vol. 68, No. 4 (December 1974):157.

[2]Donald R. Cruickshank and Betty Myers, A Brief Review of Studies of Problems of Teachers (Washington, D.C.: ERIC Document Reproduction Service, ED 117 068, 1975), pp. 64, 65.

Problem Today Inventory (MBPTI) instrument to describe their biggest problem each day for a period of ten days. Participating teachers were from 26 schools which had been randomly selected from those holding membership in the National Association of Secondary School Principals (NASSP). The second stage of the study included another national sample of secondary teachers. They were randomly selected from 16 NASSP member schools. Cruickshank et al reported the following specific problems as being frequent and/or bothersome:

1. Having every student work.
2. Maintaining order, quiet or control.
3. Having all the students participate in class.
4. Having time for class preparation.
5. Providing for individual learning differences.
6. Creating interest in class topics.
7. Planning instruction in different ways and for different purposes.

Additionally, Cruickshank et al identified administrative support and establishing rapport with students as major problems of experienced teachers. Cruickshank and Myers also identified problems such as having all the students participate in class and having every student engage in their class work.

Two additional studies were reviewed that identified problems related to lack of time for experienced teachers to perform their professional tasks. Myers, Cruickshank and Rentel[1] conducted a study

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[1]Betty Myers; Donald R. Cruickshank; and Victor M. Rentel, Perceived Problems of Teachers of Reading: Fact and Paradox (Washington, D.C.: ERIC Document Reproduction Service, ED 167 951, 1975), pp. 8, 10-12.

in 1975 on the problems perceived by teachers of reading. The main purpose of that study was to explore a variety of problems teachers were perceiving in their daily teaching of reading to students, and to describe a needs-assessment methodology to use in identifying the problems of reading teachers.

Two samples of teachers were involved in the study. The first sample consisted of 40 teachers enrolled in graduate courses at Ohio State University during the spring of 1975. The second sample consisted of the participants in the July 1975 Right-to-Read statewide conference. Myers, Cruickshank and Rentel reported the following problems perceived by the teachers as frequent and significant:

1. Finding enough time to help students.
2. Having preparation time.
3. Providing for individual differences.
4. Getting students to work thoroughly.
5. Having appropriate materials.
6. Motivating students.

Another study was conducted by Myers et al[1] in 1975 to examine the self-reported problems experienced by teachers. To accomplish the purpose of this study, a personality inventory and a teacher problems checklist were administered to a sample of secondary level teachers. The sample consisted of 451 Ohio teachers in grades 7-12. Approximately half of the teachers were teaching in public schools in suburban, small town, or rural districts in central Ohio. Most of the

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[1]Betty Myers; John J. Kennedy; and Donald R. Cruickshank, "Relationship of Teacher Personality Variables to Teacher Perceived Problems," The Journal of Teacher Education Vol. XXX, No. 6 (Nov.-Dec. 1979):33-40.

remaining teachers were teaching in Columbus public or parochial schools. A total of 432 complete sets of usable instruments were returned. These authors reported two problems to be of greatest concern to the teachers:

1. Classroom control.
2. Time management.

Additionally, Myers, Cruickshank and Rentel identified providing for individual differences, getting students to work thoroughly and having appropriate materials.

Cruickshank et al[1] conducted a study in 1968 to determine problems perceived by teachers in schools serving rural disadvantaged populations and a comparison of these with problems reported by inner-city teachers. This provided a data base which identified prominent education problems characteristic of impoverished urban and rural settings. An extreme group sampling procedure was adopted to specify problems peculiar to the least affluent rural teaching context. The rural disadvantaged schools were identified first by county and then by the most disadvantaged elementary schools within these counties. The sample consisted of 354 teachers. They reported the following problems:

1. Finding time for individual instruction.
2. Controlling students.
3. Helping students to work independently.
4. Finding a variety of adequate instructional methods.
5. Finding appropriate instructional materials.

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[1]Donald R. Cruickshank; John J. Kennedy; James Leonard; and Robert Thurman. Perceived Problems of Teachers in Schools Serving Disadvantaged Populations and their Comparison with Problems Reported by Inner-City Teachers (Washington, D.C.: ERIC Document Reproduction Service, ED 027 986, 1968), pp. 10, 13.

The findings from this study by Cruickshank et al were consistent with the findings of Cruickshank and Myers on secondary school teachers.

Cruickshank and Leonard[1] conducted a study in 1967 to determine the type and extent of problems perceived by teachers as they teach in inner-city schools. The Teacher Problem Inventory (TPI) was the instrument used to collect data from 287 K-6 teachers in the cooperating schools. The researchers identified the following frequent and severe problems as perceived by teachers:

1. Finding satisfactory methods of disciplining children.
2. Handling children who won't obey teacher's directions or orders.
3. Finding time for individual instruction.
4. Getting children to do classwork properly.
5. Helping children to work independently.

The findings of this study identified problems very real to classroom teachers teaching disadvantaged children in inner-city schools. It was also very relevant to the research under investigation. Most of the findings of this study were consistent with the findings of the study cited above and the findings of secondary school teachers. The two previously cited researchers found that experienced teachers perceived helping students to work independently in the classroom as a major problem. They specified this problem among their top four areas of concern.

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[1]Donald R. Cruickshank and James Leonard. The Identification and Analysis of Perceived Problems of Teachers in Inner-City Schools, (Washington, D.C.: ERIC Document Reproduction Service, ED 026 335, 1967), pp. 3, 4.

Pedagogical Classroom Instructional Problems of Beginning and Experienced Vocational Agriculture Teachers

Introduction

As a basis for identifying pedagogical classroom instructional problems of beginning and experienced vocational production agriculture teachers, it is necessary to identify the components of a local vocational agriculture program. Teacher educators in agriculture recognize the instructional program, leadership development (such as FFA), and supervised occupational experience as the principal components of a vocational agriculture program. According to Phipps,[1] instructional classroom activities provide opportunity for high school students to study and discuss problems related to farming programs and farm living. The success of a local vocational agriculture program will depend upon the use of a planned instructional program. "An effective local program in vocational agriculture includes a 'complete' program of instruction."[2]

The Michigan Association of Teachers[3] also indicated that a quality program for vocational education in agriculture should include:

1. Relevant instruction utilizing classroom.

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[1]Lloyd J. Phipps, Handbook on Agricultural Education in Public Schools, 4th ed. (Danville, Ill.: Interstate Printers and Publishers, Inc., 1980), p. 6.

[2]H. N. Hunsicker, Planning and Conducting a Program of Instruction in Vocational Agriculture for Young Farmers, Vocational Division Bulletin, No. 262, Agricultural Series No. 67 (Washington, D.C.: United States Government Printing Office, 1956), p. 7.

[3]Michigan Association of Teachers of Vocational Agriculture, "Position Paper on Vocational Education in Agriculture" (Lansing, Mi.: Michigan Association of Teachers of Vocational Agriculture, 1983), p. 8.

2. An implemented sequence of agricultural instruction.

3. A year-round instructional program.

Professionals in the Virginia department of education have also stated that a major criterion for an effective secondary vocational agriculture program is a quality instructional program.[1]

Pedagogical Classroom Instructional Problems of Beginning Vocational Agriculture Teachers

Four studies reported problems related to discipline. Riley[2] presented a paper in 1979 at the Annual Convention of the American Vocational Association, doctoral research section. The study was conducted on identification and validation of critical incidents in classroom discipline and their solutions as reported by first-year vocational teachers in the state of Florida. The purpose of the study was to identify critical and frequent discipline incidents and appropriate alternatives for handling them; to identify discipline problems which should be included in pre-service and in-service education; and to compare the solutions used by the teachers with solutions proposed by experts in the field.

The sample included 79 first-year vocational teachers who were currently teaching in public secondary schools in 29 county districts in

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[1]Agricultural Science and Mechanics I and II - An Instructional Guide For Agricultural Education (Richmond, Va.: Division of Vocational Program Services, Department of Education, 1981), p. 66.

[2]Martia G. Riley, "The Identification and Validation of Critical Incidents in Classroom Discipline and Their Solutions as Reported by First-Year Vocational Teachers in the State of Florida," Annual Convention, The American Vocational Association (December 1979):3.

the state of Florida. Riley reported that these beginning vocational agriculture teachers perceived discipline problems as being frequent in occurrence.

Camp[1] conducted a study in 1985 on the solutions to discipline problems. He found that discipline and motivating students were still major concerns of beginning teachers.

Herren[2] conducted a similar study in 1985 on classroom management. He also reported discipline problems or control of students in the classroom as a major concern of beginning teachers. The findings of Riley were consistent with the findings of Camp and Herren.

Hixon[3] conducted a study on discipline problems in 1949. He concluded that control of students in the classroom was a problem for beginning teachers.

Over a period of more than thirty years, all of the four researchers cited found that discipline problems were of major concern to beginning vocational agriculture teachers.

A group of three studies reported problems related to motivating students, individualizing instruction and lack of materials for instruction. Farrington[4] conducted a study in 1980 to quantify and qualify the problems faced by beginning teachers of vocational

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[1]William G. Camp, "Solutions to Discipline Problems," Agricultural Education Magazine Vol. 57, No. 9 (March 1985):4.

[2]Ray Herren, "Classroom Management: Understand, Anticipate and Plan," Agricultural Education Magazine Vol. 57, No. 9 (March 1985):11.

[3]L. B. Hixon, "'Get the Jump' on Discipline Problems," Agricultural Education Magazine Vol. 28, No. 3 (September 1955):53.

[4]William S. Farrington, "Problems of Beginning Vocational Agriculture Teachers in the Southern Region," Southern Research Conference in Agricultural Education (1980):12.

agriculture at the secondary school level in 13 southern states. The sample consisted of 295 beginning vocational agriculture teachers from the 13 participating states. He reported the following problems perceived by beginning teachers:

1. Adapting instruction for students with low academic ability.
2. Motivating students and keeping them interested in class.
3. Acquiring sufficient teaching aids.

Fields[1] conducted a study in 1978 to identify problems of teachers of vocational agriculture who were not agricultural education majors. The sample consisted of a group of teachers in Virginia with less than two years of teaching experience. Fields reported the following most significant problems:

1. Maintaining the students' interest.
2. Lack of adequate resource materials.
3. Insufficient time for planning.
4. Providing individualized instruction.
5. Making provision for testing.

His findings were consistent with the findings of Farrington.

A study was conducted by Knight[2] on the current status of women teachers of vocational agriculture in Ohio and their perceptions of their place in the profession. The sample consisted of all the 43 women teachers in Ohio, most of whom had taught less than five years. Knight

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[1]M. A. Fields, "Non-Agricultural Education Majors' Teaching Effectiveness," Agricultural Education Magazine Vol. 50, No. 7 (January 1978):165.

[2]James A. Knight, "Current Status of Women Teachers of Vocational Agriculture in Ohio and Their Perceptions of Their Place in the Profession," Proceedings of the 41st Annual Research Conference in Agricultural Education, Central Region, Chicago, Ill. (February 1987):1-6.

reported the following difficulties perceived by the women teachers:

1. Unmotivated students.
2. Lack of time to meet all the professional demands.
3. Trouble with administrators.

All of the three previously cited researchers, Farrington, Fields and Knight, found that motivating students was a major concern of beginning teachers. Farrington and Fields also identified providing for individualized instruction and lack of resource materials as major concerns of beginning teachers. Knight found that lack of time for professional tasks was a major concern.

Two studies reported problems related to teaching the use of record books and obtaining equipment. Webb and Stoner[1] conducted a staff study in 1977 to determine the problem areas encountered by all first year vocational agriculture teachers in the state of Texas. A questionnaire listing potential problem areas was sent to all the first year teachers. The problem areas ranked highest were: teaching the use of record books, and obtaining supplies and equipment.

A study was also conducted by Auville[2] in 1984 on motivating students for record keeping. He reported that record keeping was one of the most difficult topics for vocational agriculture teachers to teach. Auville also reported that it was very difficult to motivate students to become interested in record keeping. Auville's finding was consistent

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[1]Earl S. Webb and Thomas M. Stoner, "A Study of Problems Experienced by First Year Vocational Agriculture Teachers," Staff Study, 1977, 64 p., 1976-1977 Summaries of Studies in Agricultural Education, p. 68.

[2]Martin Auville, "Motivating Students for Recordkeeping," Agricultural Education Magazine Vol. 56, No. 12 (June 1984):12.

with that of Webb and Stoner. These three researchers identified teaching record keeping or record books as a major concern of beginning teachers.

There were three studies which reported problems related to the FFA and SOEP areas. In 1983, Priebe and Fegert[1] conducted a study to identify problems of first year vocational agriculture teachers in Minnesota, Montana, North Dakota and South Dakota, and to determine the degree of severity of these problems. The sample consisted of 53 first year vocational agriculture teachers, with 44 teachers used in the analysis of data. The beginning teachers indicated that the areas of SOEP and FFA presented the greatest problems. Time management was also a major concern of these teachers.

In 1984, Miller and Scheid[2] conducted a study in Iowa to determine the problems encountered by beginning vocational agriculture teachers and to compare these findings with problems experienced by vocational agriculture teachers who have been in the profession for many years. The sample was composed of 60 teachers, with four groups of 15 teachers each, according to years of teaching experience. Miller and Scheid reported SOEP to be the most difficult area, with FFA as the least difficult. Furthermore, helping students to develop a SOEP was reported to be the most difficult activity.

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[1]Priebe and Fegert, "Problems of Beginning Vocational Agriculture Teachers," pp. 6,7.

[2]Wade W. Miller and Carl L. Scheid, "Problems of Beginning Teachers of Vocational Agriculture in Iowa," Journal of the American Association of Teacher Educators in Agriculture Vol. 25, No. 4 (Winter 1984):4.

There were seven other activities giving the first-year teachers the most problems:

1. Teaching students with different ability levels.
2. Developing teaching materials.
3. Involving students in classroom activities.
4. Teaching students record keeping.
5. Preparing for classes.
6. Arousing student interest.
7. Motivating FFA committees to function.

The activities causing moderate problems for the first year teachers were training FFA officers effectively and preparing FFA members for contests.

Kahler[1] conducted a study in 1974 to determine problems encountered by beginning teachers in conducting comprehensive programs of vocational agriculture. The sample consisted of 60 beginning vocational agriculture teachers who graduated from Iowa State University and were currently teaching in Iowa. Fifteen teachers were grouped into each of four categories depending on their years of teaching. Kahler reported the following areas with the most difficult activities:

1. FFA
   a. Involving all members in leadership training activities.
   b. Developing an effective local officer training program.
2. SOEP
   a. Teaching record keeping.

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[1]Alan A. Kahler, Organizational and Instructional Problems of Beginning Teachers of Vocational Agriculture (Ames, Ia.: The Department of Agricultural Education, Iowa State University, 1974), pp. 14, 23, 31, 35, 124, 125.

b. Assisting employers in developing training program schedules to achieve the goals and objectives for student experience programs.

c. Analyzing and using students' occupational experience records.

3. Classroom teaching

a. Motivating students to learn.

b. Teaching students with different ability levels.

c. Determining individual needs of students.

d. Planning programs of activities.

The activities causing the teachers the least degree of difficulties in FFA were:

1. Advising FFA committees.

2. Assisting chapter officers in planning.

3. Assisting members in carrying out special activities.

In the area of SOEP, using students' occupational experiences as topics for classroom study presented the least difficulty to beginning teachers. In the area of classroom teaching, using audio-visual equipment and instructional aids in classroom teaching; and involving all students in classroom instructional activities were reported to be of least difficulty to the teachers.

The three previously cited researchers, Priebe and Fegert; Miller and Scheid; and Kahler, found that beginning teachers perceived FFA and SOEP areas as major problems facing them in the classroom. Their findings were all consistent with one another. Furthermore, Miller and Scheid; and Kahler also identified teaching students with different ability levels and teaching record keeping as major problems of teachers.

Dillon[1] conducted a study in 1978 to identify the factors which influenced Agricultural Education graduates of the University of Nebraska-Lincoln to leave teaching during the five year period 1969-1974. The sample consisted of 124 Nebraska vocational agriculture teachers who left the teaching profession. There were 26 former graduates of the university who resided in Nebraska and were used in the study. Dillon reported the following reasons why the teachers quit teaching:

1. Students not interested.
2. Time required for FFA activities.
3. Time for preparing classroom teaching.
4. Lack of administrative support.
5. Discipline problems.

Since these reasons confirm some of the problems of teachers in the classroom, the study was pertinent to the research under investigation. Dillon's findings were consistent with the findings of other researchers cited on the problems of beginning vocational agriculture teachers.

Phipps[2] conducted a study in 1949 on the problems of beginning teachers. Planning courses and using approved teaching techniques were reported as difficulties facing beginning teachers.

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[1]Roy D. Dillon, Identification of Factors Influencing Vocational Agriculture Teachers to Leave Teaching," The Journal of the American Association of Teacher Education in Agriculture Vol. XIX, No. 3 (November 1978):36, 38.

[2]L. J. Phipps, "Problems of beginning teachers," Agricultural Education Magazine Vol. 22, No. 2 (August 1949):34.

Pedagogical Classroom Instructional Problems of Experienced Vocational Agriculture Teachers

Five studies reported discipline problems as encountered by experienced teachers. Mott[1] conducted a study in 1950 on teacher failures in public schools. The sample consisted of 200 vocational agriculture teachers evaluating the failures of teachers in all fields. On the basis of his study, he concluded that the toughest problem of teachers in the classroom is to maintain proper discipline of students. Most researchers still reported discipline problems in the 1980's.

In 1978, Bender[2] conducted a study on vocational agriculture educators seeking to increase numbers and professionalism. This study was based on the ninth annual Gallup poll of public attitudes toward public schools. This study identified lack of discipline as one of the top ten problems of vocational agriculture teachers.

Camp[3], in a study conducted on solutions to discipline problems in 1985, identified discipline to be less of a problem, but found that motivating students was a major concern of experienced teachers.

Hill and Knowles[4] conducted a study in 1985 on special needs students. Discipline was found as one of the major problems facing the teachers of these students in public schools.

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[1]Edward B. Mott, "Teacher Failures in the Public Schools," Agricultural Education Magazine Vol. 22, No. 9 (March 1950):209.

[2]Bender, "Vo-Ag Educators Seek to Increase Numbers and Professionalism" (May 1978):51.

[3]Camp, "Solutions to Discipline Problems," p. 4.

[4]George C. Hill and Ginny A. Knowles, "Special Needs Students: A Management Challenge," Agricultural Education Magazine Vol. 57, No. 9 (March 1985):9.

Another study was conducted on discipline by Garrison and Holz[1] in 1985. They conducted a study on the 4 "F's" that equal an "A" in classroom management. Vocational agriculture teachers did not view student misbehavior in the classroom as a serious problem. The most serious problems reported by the teachers in this study were those related to the poor attitude of students.

Three of the five previously cited researchers, Mott, Bender, and Hill and Knowles identified discipline as a major problem of experienced teachers. Camp, as well as Garrison and Holz, reported discipline as not a serious problem for experienced teachers.

Three studies reported problems related to lack of administrative support. Lamberth[2] in 1959 conducted a study on why teachers of vocational agriculture leave the profession. He reported the following reasons which constitute problems for experienced teachers, and which relate to this study :

1. Lack of interest from school administrators in vocational agriculture.
2. Lack of aid in securing needed supplies and equipment from school administrators.
3. Lack of cooperation and understanding from school administrators.
4. School administrators would not arrange a suitable schedule for vocational agriculture.

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[1]James M. Garrison and Edward Holz, "The 'F's' that equal an 'A' in Classroom Management," Agricultural Education Magazine Vol. 57, No. 9 (March 1985):15.

[2]Edwin E. Lamberth, "Why Teachers of Vocational Agriculture Leave the Profession," Agricultural Education Magazine Vol. 31, No. 7 (January 1959):174.

Miller[1] conducted a study in 1980 to determine the changing roles of vocational agriculture teachers in supervised occupational experience in North Carolina. The sample consisted of 122 teachers from a total of 124 names that were taken as a random sample from the total population of vocational agriculture teachers. Miller reported that the teachers were being hampered in developing SOE programs by a lack of administrative support in the schools.

A study was conducted in 1979 by Moore and Camp[2] to identify the factors which contributed to the departure of vocational agriculture teachers from the profession in Indiana, according to the perceptions of three different groups of people, and to determine the extent to which there was agreement and disagreement among the groups. The primary population consisted of all vocational agriculture teachers who had taught in Indiana between 1973 and 1977 but were no longer teaching high school vocational agriculture. The secondary population for this study consisted of the teachers who replaced the departed teachers and the principals of the high schools in which the vacancies occurred.

Moore and Camp found that the problems perceived by the former teachers were: too many required extracurricular activities and inadequate administrative support. The principals perceived an inability on the part of the teachers to get students to learn as

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[1]Texton R. Miller, "The Changing Status of Supervised Occupational Experience in Vocational Agriculture in North Carolina," The Journal of the American Association of Teacher Educators in Agriculture Vol. XXI, No. 1 (March 1980):18.

[2]Gary E. Moore and William G. Camp, "Why Vocational Agriculture Teachers Leave the Profession: A Comparison of Perceptions," The Journal of the American Association of Teacher Educators in Agriculture Vol. XX, No. 3 (November 1979):12, 15.

desired and the teachers' dislike for disciplining students. The present teachers were perceived also as unable to get students to learn as desired. The present teachers perceived the same problems as the principals. The three studies cited identified lack of administrative support as a problem of experienced teachers.

Four studies reported problems related to FFA and SOEP. As stated earlier, a study was conducted in 1984 by Miller and Scheid[1] in Iowa to determine the problems encountered by beginning vocational agriculture teachers and to compare these findings with problems experienced by vocational agriculture teachers who have been in the profession for many years. They found that SOEP was the most difficult area for experienced teachers, while FFA was least difficult. Motivating FFA committees to function presented the greatest problem. Teaching students with different ability levels was also reported as a major problem for these teachers.

As also stated earlier, Kahler[2] conducted a study in 1974 to determine problems encountered by beginning teachers in conducting comprehensive programs of vocational agriculture in Iowa. The study indicated the following most difficult activities for experienced teachers:

1. FFA
    a. Involving all members in leadership training activities.
    b. Developing an effective local officer training program.

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[1]Miller and Scheid, "Problems of Beginning Teachers of Vocational Agriculture in Iowa," pp. 4; 6.

[2]Kahler, Organizational and Instructional Problems of Beginning Teachers of Vocational Agriculture, pp. 14, 23, 31, 35, 124, 125.

2. SOEP

   a. Teaching record keeping.

   b. Assisting employers in developing training program schedules to achieve the goals and objectives for student experience programs.

   c. Analyzing and using students' occupational experience records.

3. Classroom teaching

   a. Motivating students to learn.

   b. Teaching students with different ability levels.

   c. Determining individual needs of students.

The activities causing experienced teachers the least difficulty in FFA were:

1. Advising committees.

2. Assisting chapter officers in planning.

3. Assisting members in carrying out special activities.

Using students' occupational experiences as topics for classroom study presented the least difficulty in SOEP. In the area of classroom teaching, using audio-visual equipment and instructional aids in classroom teaching; and involving all students in classroom instructional activities were reported to be of least difficulty for the experienced teachers.

Sunderhaus and Miller[1] conducted a study in 1985 to identify organizational and instructional problems in the vocational agriculture

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[1]Tara L. Sunderhaus and Wade W. Miller, "An Assessment of the Organizational and Instructional Difficulties Associated with Job Tasks of Indiana Vocational Agriculture Instructors," The Journal of the American Association of Teacher Educators in Agriculture Vol. 26, No. 4 (Winter 1985):68-70.

program as perceived by vocational agriculture instructors in Indiana. The sample consisted of 152 secondary vocational agriculture instructors teaching in Indiana during the 1983 school year. Their findings suggested that there was no single area (e.g., classroom instruction, SOEP and FFA) of the vocational agriculture program which presented major difficulty for the teachers surveyed. The most difficult activities reported were:

1. Planning, supervising and evaluating SOEP.
2. Implementing computer assisted instruction.
3. Developing individualized instruction for disabled students.
4. Teaching students with different ability levels.
5. Advising FFA.
6. Utilizing community resource people.

King and Miller[1] conducted a study in 1985 to determine the relative level of difficulty associated with some of the responsibilities or duties of vocational agriculture teachers in conducting comprehensive vocational programs in Georgia secondary schools. The sample consisted of 150 vocational agriculture teachers from Georgia high schools with vocational agriculture programs in 1984. It was reported that no single area (SOEP, FFA and classroom instruction) of vocational agriculture programs caused more than moderate problems for teachers. The following problem areas and activities were identified as causing the greatest difficulty in descending order:

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[1]Dennis W. King and Wade W. Miller, "The Relative Level of Difficulty Associated with Responsibilities of Vocational Agriculture Teachers in Georgia," The Journal of the American Association of Teacher Educators in Agriculture Vol. 26, No. 4 (Winter 1985):75-7.

1. SOEP
    a. Requiring participation in SOE by all students.
    b. Identifying an SOEP appropriate for each student.
    c. Organizing and keeping an SOE file on each student.
    d. Providing a variety of occupational experiences.
2. FFA
3. Classroom instruction
    a. Implementing computerized instruction.
    b. Teaching students with different ability levels.
    c. Developing individualized instruction for disabled students.

All of the four previously cited researchers, Miller and Scheid; Kahler; Sunderhaus and Miller; and King and Miller found that experienced teachers identified FFA and SOEP as problems of concern. Additionally, these researchers identified the area of classroom teaching as a problem of experienced teachers.

Auville[1] conducted a study on motivating students for record keeping in 1984. He concluded that teaching record keeping and motivating students to become interested in record keeping were problems of vocational agriculture teachers in the classroom.

Bobbitt[2], a professor of Agricultural and Extension Education, Michigan State University, conducted a study in 1986 on the opinions and

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[1]Auville, "Motivating Students for Recordkeeping," p. 12.

[2]Frank Bobbitt, An Examination of the Opinions and Supervised Occupational Experience Programs of Selected Vocational Agriculture Instructors in the U.S., Staff Study (East Lansing, Mi.: Dept. of Agricultural and Extension Education (AEE), College of ANR, Michigan State University, 1986), pp. 55-57.

programs of a selected group of vocational agriculture instructors about their supervised occupational experience programs. The main purpose of the study was to determine what the status of supervised occupational experience was among these secondary agricultural instructors who had been identified as some of the best in the states surveyed. The sample consisted of 77 teachers from a random sample of 16 states, and 62 teachers responded to the questionnaire. Bobbitt reported the following biggest problems connected with SOEP in these teachers' experience:

1. Lack of opportunities for students to learn in desired occupations.
2. Lack of school administrative support.
3. Finding time for professional tasks.
4. Teaching record keeping.
5. Motivating students to keep their records up-to-date.
6. Finding good training stations for placement.
7. Finding projects for each student.

Auville and Bobbitt both reported teaching record keeping and motivating students to become interested in record keeping as concerns of teachers.

Summary

In this chapter, a review of the literature pertinent to pedagogical classroom instructional problems perceived by beginning and experienced vocational production agriculture teachers has been made, including the following basic areas: Introduction, Pedagogical

Classroom Instructional Problems of Beginning Regular Classroom Teachers, Pedagogical Classroom Instructional Problems of Experienced Regular Classroom Teachers, Pedagogical Classroom Instructional Problems of Beginning Vocational Agriculture Teachers and Pedagogical Classroom Instructional Problems of Experienced Vocational Agriculture Teachers.

From the studies reviewed, some of the problems encountered by beginning and experienced regular classroom teachers were similar to the problems encountered by beginning and experienced vocational agriculture teachers, except the FFA and SOEP areas which are only limited to vocational agriculture teachers. The four groups of teachers encountered the following common problems: students' discipline, motivating students to have desire to learn, planning for individual differences among students, and finding time to get professional tasks accomplished. The FFA and SOEP are major components of the vocational agriculture program. These two areas differentiate the regular teachers from the vocational agriculture teachers. In some of the studies reviewed, vocational agriculture teachers encountered major problems in the areas of FFA and SOEP.

Two studies were similar in design to the researcher's study. The two studies conducted by Miller and Scheid in 1980 and Kahler in 1974 basically were conducted to determine the problems encountered by beginning vocational agriculture teachers and to compare the findings with the problems encountered by experienced teachers. They reported that FFA and SOEP areas were major problems confronting both the beginning and the experienced teachers. The activities causing problems for these teachers were: teaching students with different

ability levels, motivating FFA committees to function, involving all members in leadership training activities, teaching students record keeping, providing a variety of occupational experiences, and identifying an SOEP appropriate for each student.

Many of the studies identified problems which were used to determine implications for teacher education in agriculture at a particular university and for overall agricultural education pre-service and in-service programs in the country. The differences in problems among teachers are the result of the interaction of a number of variables. Thus, there is value in considering as broad a range of possible variables that influence teacher effectiveness as possible.

The literature clearly provided support for this study and guided the author in selecting items for the teacher questionnaire. The methodology of the study is described in Chapter III.

CHAPTER III

METHODOLOGY

Introduction

This study was conducted using survey research procedures and practices. This chapter on the research procedures is divided into the following sections: (1) Population Identification, (2) Sample Selection, (3) Development of the Instrument, (4) Data Collection and (5) Data Analysis.

Population Identification

The population for this study included all beginning and experienced vocational production agriculture teachers in Michigan comprehensive high schools in the school year 1985-86. In that school year, there were 118 vocational production agriculture teachers, 107 (91 percent) male and 11 (9 percent) female. There were 26 beginning and 92 experienced teachers.

Richard Karelse, state supervisor and consultant, Michigan Department of Education, identified all the vocational production agriculture teachers from the list of 1985-86 Michigan vocational agriculture teachers.

Sample Selection

All of the beginning Michigan vocational production agriculture teachers were used (n = 26). There were 19 males and seven females in this group. Sax [1] indicated that the total group may be studied where populations are small and accessible.

A selected group of experienced Michigan vocational production agriculture teachers also was used in this study. There were 92 experienced vocational production agriculture teachers. Only 26 experienced and successful teachers were used in order to obtain a more equitable comparison within and between the two groups of teachers.

A two-step procedure was employed to select the group of experienced teachers. The first step involved the use of a jury committee comprising five members: three teacher educators in agriculture from the Department of Agricultural and Extension Education, Michigan State University, and two Michigan State Supervisors (Appendix B). The criteria for selecting the teacher educators were as follows:

1. A minimum of five years of classroom teaching vocational agriculture at the secondary level.
2. A minimum of eight years of experience in teacher education in agriculture education in Michigan.
3. Currently an active participant in a Michigan vocational agriculture teacher education program.
4. A doctoral degree in teacher education.

The criteria for selecting the state supervisors were:

1. A minimum of five years of classroom teaching of vocational agriculture at the secondary level.

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[1] Gilbert Sax, Principles of Educational Measurement and Evaluation., (Belmont, Ca.: Wadsworth Publishing Co., 1974), p. 436.

2. A minimum of five years of professional education experience in vocational agriculture education in Michigan.

3. Currently employed in education in the administration or supervision of vocational agriculture programs on a statewide basis.

4. A master's degree or more in vocational education.

The jury members were given a cover letter, a list of 1985-86 experienced Michigan production agriculture teachers (n = 92), and a list of criteria for selecting experienced and successful vocational production agriculture teachers. The criteria used by the jury for selecting experienced and successful teachers were:

1. Currently a recognized teacher of vocational production agriculture in Michigan.

2. A minimum of five years (including current year) teaching production agriculture in Michigan secondary schools.

3. Belongs to at least two national professional organizations.

4. Attends leadership training meetings regularly.

5. Attends professional state or national conventions and other professional meetings regularly.

6. Participates in workshops or other in-service programs regularly.

All the teachers selected by the jury had to satisfy at least four of the six criteria. The first and second criteria listed above were mandatory and two or more of the remaining four criteria were required in order for a teacher to be selected.

In order for a teacher to be selected for the study, at least three of the five members of the jury had to identify him or her as a successful teacher. A total of 40 teachers fulfilled the specified criteria and were selected by at least three members of the jury. Of the 40 teachers, 14 were selected unanimously; six by four members of the jury; and 20 by three members.

To get a total sample of 26 teachers, those selected unanimously and by four members of the jury were included (n = 20). The second step in the procedure involved selecting six additional teachers. A random sample of the 20 teachers who were chosen by three members of the jury were selected. Borg and Gall[1] defined simple random sampling as all the individuals in the defined population having an equal and independent chance of being selected as a member of the sample. Kerlinger[2] also defined random sampling as a method of drawing a portion of a population so that each member of the population has an equal chance of being selected.

Since the population was only 20, the simple random sampling procedure involved writing each name on a small piece of paper, mixing them together in a container, and drawing six names. Borg and Gall[3] mentioned that ". . . if a small population is used, a simple random sample may involve placing a slip of paper with the name of each individual in the population, mixing the slips thoroughly in a container and drawing the required number of names."

Development of the Instrument

A questionnaire instrument was developed to collect the data needed to fulfill the objectives of this study. A Likert scale was the

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[1]Walter R. Borg and Meredith D. Gall, Educational Research: An Introduction, 3rd ed., (New York, N.Y.: Longman Inc., 1979), p. 182.

[2]Fred N. Kerlinger, Foundations of Behavioral Research, 2nd ed., (New York, N.Y.: Holt, Rinehart and Winston, Inc., 1973), p. 118.

[3]Borg and Gall, Educational Research, p. 183.

method employed to measure the respondents' answers. According to Borg and Gall,[1] "Likert Scales are probably the most common types of attitude scales constructed." Original Likert scales used five categories such as strongly agree, agree, undecided, disagree and strongly disagree.[2] Each category had a scale value assigned to it. The "5" scale value was used to indicate a statement that was strongly agreed with, while the "1" scale value on the other hand was used to indicate a statement that was strongly disagreed with. Best[3] stated, "The Likert scaling technique assigns a scale value to each of the five responses."

The agreement on positive statements indicated teachers' perceptions of no problem, while the agreement on the negative statement indicated teachers' perceptions of problems in the particular area of classroom instruction. All responses to positive items were recoded so that the items became negative. After the recoding was done, the larger mean on any item would indicate relatively more problem and the smaller would indicate relatively less problem.

The interpretation of the means of responses to both positive and negative statements in the questionnaire was:

Range of the Mean	Interpretation of Responses
Less than 2.5	Least Problem
2.5 - 3.5	Some Problem
More than 3.5	Most Problem

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[1]Ibid., p. 299.

[2]Charles D. Hopkins, Educational Research: A Structure for Inquiry, (Columbus, Oh.: Charles E. Merrill Publishing Co., 1976), p. 148.

[3]John W. Best, Research in Education, 4th ed. (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1981), p. 182.

The survey instrument was reviewed and field tested for improvement, clarity, validity and reliability. The following procedures were used: (1) select a jury, (2) pilot test the instrument and (3) compute Cronbach's Alpha Coefficient (post-hoc) for reliability testing.[1]

The purpose of the jury was to validate the items, to assist in the improvement of the overall quality of the instrument, and to make suggestions for the clarification of any ambiguous items. The jury consisted of three teacher educators in agriculture from the Department of Agricultural and Extension Education, Michigan State University (Appendix B). The jury members were given a cover letter (Appendix C); a copy of the research purpose and objectives; and a copy of the survey instrument, respectively (Appendix H). The researcher gave them one week to review the instrument and met with each one of them afterwards to discuss their suggestions for improving the instrument. After the jury members had completed their task, the instrument was prepared for pilot testing.

Wiersma[2] stated that "A pilot study is a preliminary use of the instrument with (usually) a small number of individuals." Borg and Gall[3] also indicated that a researcher should pretest a questionnaire

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[1]Tara L. Sunderhaus and Wade W. Miller, "An Assessment of the Organizational and Instructional Difficulties Associated with Job Tasks of Indiana Vocational Agriculture Instructors," Proceedings of the 39th Annual Research Conference in Agricultural Education, Central Region, Chicago, Il. (February 1985):3.

[2]William Wiersma, Research Methods in Education: An Introduction, 3rd ed. (Boston, MA: Allyn and Bacon, Inc., 1985), p. 87.

[3]Borg and Gall, Educational Research, p. 301.

with a sample of individuals similar to the group one wishes to use in the research before using the questionnaire in the study. Since all of the beginning vocational production agriculture teachers (n = 26) were used for the study, the researcher's advisor suggested using six experienced and successful vocational production agriculture teachers, who were not included in the sample for the study, for pretesting. The six names were selected, using a simple random sampling technique as described earlier, from the 14 names remaining after the six names had been drawn for the study. No changes were made on the instrument as a result of the pretest.

The researcher forwarded the questionnaire and a statement of the purpose of the research to the chairperson of the Committee on the Rights of Human Subjects for clearance at Michigan State University. The clearance was necessary since the study involved human subjects. Approval was granted to administer the instrument (Appendix G).

The questionnaire was made up of two parts. Part I was designed to collect demographic data and was made up of six items (Appendix H). Part II was made up of a list of 66 classroom instructional items (Appendix H) that pertain to teacher activities in conducting local vocational agriculture programs in Michigan. A post-hoc reliability testing procedure was carried out using Cronbach's Alpha Coefficient method. The reliability coefficient of the questionnaire was 0.55 (Appendix L). The reliability was not very high because the sample was homogeneous. The respondents were production agriculture teachers; hence they were all familiar with the items on the questionnaire. Since the sample was homogeneous, the variation in responses was low

and this caused the reliability to be low. Allen and Yen[1] stated that a low reliability coefficient does not necessarily tell whether a questionnaire actually has low reliability. "In general, the more heterogeneous the group, the higher the reliability coefficient is likely to be."[2] "A third factor influencing the estimated reliability of a test is . . . the more heterogeneous the group, the higher the reliability."[3]

Data Collection Procedure

Two sets of mailing labels and addressed envelopes of the identified names and addresses of the production agriculture teachers for the study were obtained from the Department of Agricultural and Extension Education, Michigan State University. The envelopes were used for the initial mailing and the two sets of mailing labels were used for thank-you and follow-up purposes.

The first set of questionnaire forms was mailed to 52 production agriculture teachers on April 10, 1986. A cover letter, a return postcard (Appendix E) and a self-addressed, stamped envelope were included in each mailing. Since the survey was voluntary, UCRIHS (University Committee on Research Involving Human Subjects) had suggested sending a return postcard with the cover letter to the

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[1]Mary J. Allen and Wendy M. Yen, Introduction to Measurement Theory, (Belmont, Ca.: Wadsworth, Inc., 1979), p. 79.

[2]Gilbert Sax, Empirical Foundations of Educational Research, (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1968), p. 162.

[3]William A. Mehrens and Irvin J. Lehmann, Measurement and Evaluation in Education and Psychology, 2nd ed., (New York, N.Y.: Holt, Rinehart and Winston, Inc., 1975), p. 102.

respondents in order to maintain their anonymity. The response rate was 65 percent (34). A second questionnaire with a thank-you/reminder letter (Appendix F) and a self-addressed, stamped envelope was mailed to all respondents (52) on April 29, 1986. The response rate increased to 92 percent (48). Borg[1] indicated that a minimum of 70 percent is needed to place confidence in the findings. Babbie[2] suggested that a response rate of 70 percent or more is very good. Kerlinger[3] reported that a minimum of 80 percent is needed to generalize the findings. A summary of the response statistics is presented in Table 1.

TABLE 1.--Number and percentage of beginning and experienced vocational production agriculture teachers

Vocational Production Agriculture Teachers	Total Questionnaires Mailed	Returned After First Mailing		Returned After Second Mailing	
	No.	No.	%	No.	%
Beginning Teachers	26	16	62	23	88
Experienced Teachers	26	18	69	25	96
TOTAL	52	34	65	48	92

Data Analysis

The data were analyzed by using the Statistical Package for the Social Sciences (SPSS) at the Michigan State University Computer

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[1]Walter R. Borg, Applying Educational Research: A Practical Guide for Teachers (New York, N.Y.: Longman, Inc., 1981), p. 86.

[2]Earl R. Babbie, Survey Research Methods (Belmont, Ca.: Wadsworth Publishing Co., Inc., 1973), p. 165.

[3]Fred M. Kerlinger, Foundations of Behavior Research, 2d ed. (New York, N.Y.: Holt, Rinehart and Winston, Inc., 1973), p. 414.

Center. Data are presented in Tables in Chapter IV. The 0.05 level of significance was used. A level of significance of .05 with an accompanying 95% confidence level was used in assessing the results of this study. The .05 level of significance is one of the three levels of significance that is frequently used in survey reports.[1]

Basically, three statistical techniques were used to answer the research questions:

1. Since the study was descriptive in nature, frequencies, percentages, means and standard deviations were used to report the teachers' responses to the questionnaire.

2. Chi-square tests were used to examine the differences between beginning and experienced Michigan vocational production agriculture teachers with respect to the problems they perceived in classroom instruction.

3. The t-tests for independent sample were used to examine the differences among Michigan vocational production agriculture teachers with respect to the problems they perceived in some areas of classroom instruction that could be attributed to their length of teaching experience, local administrative support as perceived by the teachers, teachers' other responsibilities and students' classification (rural or non-rural).

Summary

The research methodology used in this study was designed to identify pedagogical classroom instructional problems perceived by Michigan vocational production agriculture teachers. To achieve this purpose, the study focused on four research questions and five hypotheses which addressed pedagogical classroom instructional problems as related to the specific classroom instructional problem areas, general problem areas, differences in specific problem areas and differences in problems according to the general areas of classroom instruction.

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[1] Babbie, Survey Research Methods, p. 309.

Data for this study were collected by the survey method using a questionnaire. The questionnaire consisted of two parts and was rated in terms of its clarity and validated by three teacher educators in agricultural education, Department of Agricultural and Extension Education at Michigan State University.

Prior to the administration of the questionnaire, a pilot test was conducted of six experienced and successful Michigan vocational production agriculture teachers. No changes were made in the questionnaire as a result of the pilot test. Fifty-two questionnaires were mailed to the teachers; 48 questionnaires were returned and used in the data analysis. This indicates a response rate of 92 percent.

The statistical techniques used in the analysis of data included descriptive statistics in the form of frequencies, percentages, means and standard deviations; chi-square and t-tests for independent sample. Analysis of Data is presented in Chapter IV.

CHAPTER IV

ANALYSIS OF DATA

The purpose of this study was to identify and compare pedagogical classroom instructional problems perceived by beginning and experienced Michigan vocational production agriculture teachers. The objectives were to identify and compare specific problems, general problem areas, differences in specific problem areas and differences in problems according to areas of classroom instruction of beginning and experienced Michigan vocational production agriculture teachers. The data analysis was based on seven problem areas consisting of 66 problem items. The problem areas included planning for instruction, establishing classroom climate, management/execution of instruction, selecting and using instructional materials/aids, evaluation of students' performance, FFA (Future Farmers of America) and SOEP (Supervised Occupational Experience Program).

The study was designed to provide answers to the following research questions:

1. What were the problems perceived by beginning and experienced Michigan vocational production agriculture teachers in implementing classroom instructional programs of vocational production agriculture?

2. Which areas of classroom instruction of the vocational production agriculture program were perceived to cause major problems for beginning and experienced Michigan vocational production agriculture teachers?

3. Were the problems perceived by beginning Michigan vocational production agriculture teachers different from those perceived by experienced teachers?

4. Were there differences among Michigan vocational production agriculture teachers with respect to the problems they perceived in some areas of classroom instruction that could be attributed to length of teaching experience, local administrative support as perceived by the teachers, teachers' other responsibilities and students' classification (rural or non-rural)?

Basically, three statistical techniques were used to answer the research questions:

1. Since the study was descriptive in nature, frequencies, percentages, means and standard deviations were used to report the teachers' responses to the questionnaire.

2. Chi-square tests were used to examine the differences between beginning and experienced Michigan vocational production agriculture teachers with respect to the problems they perceived in classroom instruction.

3. The t-tests for independent sample were used to examine the differences among Michigan vocational production agriculture teachers with respect to problems they perceived in some areas of classroom instruction that could be attributed to length of teaching experience, local administrative support as perceived by the teachers, teachers' other responsibilities and students' classification (rural or non-rural)?

A total of 52 questionnaire forms were sent to Michigan vocational production agriculture teachers. A total of 26 each was sent to beginning and experienced teachers respectively. A summary of the response statistics was presented in Table 1.

Results

The results of the present study are presented in three sections: (1) Description of Sample, (2) Descriptive Analysis and (3) Inferential Analysis.

The description of sample covers the sample characteristics of teachers in terms of their gender, years of teaching experience, enrollment in high school vocational agriculture program, FFA membership, support from the local building administrator as perceived by the teachers and responsibilities other than teaching agriculture.

The descriptive analysis covers the identification of specific and general areas of pedagogical classroom instructional problems. The inferential analysis includes statistical tests of differences in the degree of difficulty of specific classroom instructional problems perceived by the beginning and experienced teachers. The inferential analysis for the general problem areas includes the statistical tests of the differences in the degree of difficulty (as rated on a Likert scale) of general problems perceived by the teachers. Their comparisons were made according to their years of teaching experience, support from the local building administrator as perceived by the teachers, their responsibilities apart from teaching agriculture and the classification of students (rural or non-rural) in their classrooms.

Description of Sample

The total number of population for this study was 118. This included 92 experienced and 26 beginning vocational production agriculture teachers. A group of 26 experienced teachers was selected from a total of 92; 26 beginning teachers were selected from a total of 26. A total of 48 teachers responded: 23 beginning and 25 experienced. The respondents are described in the following paragraphs according to: (1) gender, (2) teaching experience, (3) enrollment in vocational

agriculture program, (4) FFA membership, (5) support from local building administrator and (6) responsibilities other than teaching agriculture.

The data in Table 2 present the distribution of teachers according to their experience and gender. From the total sample of forty-eight, 48 percent (23) were beginning teachers and 52 percent (25) were experienced teachers. The percentages of male and female teachers were 87.5 percent (42) and 12.5 percent (6), respectively. All of the experienced teachers were male, while 73.9 percent (17) of the beginning teachers were male and 26.1 percent (6) were female.

TABLE 2.--Gender of beginning and experienced vocational production agriculture teachers

Gender	Beginning Teachers		Experienced Teachers		Total	
	No.	Percent	No.	Percent	No.	Percent
Male	17	73.9	25	100.0	42	87.5
Female	6	26.1	--	0.0	6	12.5
Total	23	100.0	25	100.0	48	100.0

Table 3 presents data concerning years of teaching experience. According to these data, 52.2 percent (12) of the beginning teachers had one year of teaching experience; 13 percent (3) had two years of teaching experience; 8.7 percent (2) had three years of teaching experience; and 26.1 percent (6) of the beginning teachers had four years of teaching experience.

As for the experienced teachers, eight percent (2) had five to nine years of teaching experience, 24 percent (6) had ten to fourteen

TABLE 3.--Years of teaching experience for beginning and experienced vocational production agriculture teachers

Years of Experience*	Beginning Teachers		Experienced Teachers		Total	
	No.	Percent	No.	Percent	No.	Percent
1	12	52.2	--	--	12	25.0
2	3	13.0	--	--	3	6.3
3	2	8.7	--	--	2	4.2
4	6	26.1	--	--	6	12.5
5-9	--	--	2	8.0	2	4.2
10-14	--	--	6	24.0	6	12.5
15-19	--	--	4	16.0	4	8.3
20-24	--	--	5	20.0	5	10.4
25 and over	--	--	8	32.0	8	16.6
Total	23	100.0	25	100.0	48	100.0

*The respondents were instructed to include their current year of teaching in their total number of years of experience (Appendix H).

years of teaching experience, 16 percent (4) had fifteen to nineteen years of teaching experience, 20 percent (5) had twenty to twenty-four years of teaching experience, and 32 percent (8) had over twenty-five years of teaching experience.

The data in Table 4 present teachers' enrollment in vocational agriculture programs when they were students in high school. One hundred percent (23) of the beginning teachers had been enrolled in vocational agriculture programs during their high school years, while 76 percent (19) of the experienced teachers had been enrolled in vocational agriculture programs.

Table 5 presents data concerning FFA membership of the teachers when they were students in high school. One hundred percent (23) of the beginning teachers were former FFA members, while 76.0 percent (19) of the experienced teachers were former FFA members.

TABLE 4.--Enrollment in vocational agriculture program in high school for beginning and experienced vocational production agriculture teachers

Vo-Ag Program	Beginning Teachers		Experienced Teachers		Total	
	No.	Percent	No.	Percent	No.	Percent
Yes	23	100.0	19	76.0	42	87.5
No	--	0.0	6	24.0	6	12.5
Total	23	100.0	25	100.0	48	100.0

TABLE 5.--FFA membership in high school for beginning and experienced vocational production agriculture teachers

FFA Member	Beginning Teachers		Experienced Teachers		Total	
	No.	Percent	No.	Percent	No.	Percent
Yes	23	100.0	19	76.0	42	87.5
No	--	0.0	6	24.0	6	12.5
Total	23	100.0	25	100.0	48	100.0

Table 6 presents data concerning the teachers' perceptions of support by local administrators. Four and three-tenths percent (1) of the beginning teachers indicated administrators were Somewhat Supportive; 30.4 percent (7) indicated Moderate to Fair support; 39.2 percent (9) indicated administrators were Supportive and 26.1 percent (6) indicated they were Very Supportive.

As for experienced teachers, 4.0 percent (1) indicated No Administrative Support, while 4.0 percent (1) indicated they were Somewhat Supportive. Twenty-four percent (6) indicated Moderate to Fair Support, 36.0 percent (9) indicated Supportive and 32.0 percent (8) indicated Very Supportive.

TABLE 6.--Local building administrative support for beginning and experienced vocational production agriculture teachers

Administrative Support	Beginning Teachers		Experienced Teachers		Total	
	No.	Percent	No.	Percent	No.	Percent
None	0	0.0	1	4.0	1	2.1
Somewhat Supportive	1	4.3	1	4.0	2	4.2
Moderate to Fair	7	30.4	6	24.0	13	27.1
Supportive	9	39.2	9	36.0	18	37.5
Very Supportive	6	26.1	8	32.0	14	29.1
Total	23	100.0	25	100.0	48	100.0

Table 7 presents data concerning professional responsibilities of teachers other than teaching agriculture. According to these data 8.7 percent (2) of the beginning teachers had no other responsibilities,

TABLE 7.--Other responsibilities of beginning and experienced vocational production agriculture teachers

Additional Responsibilities	Beginning Teachers		Experienced Teachers		Total	
	No.	Percent	No.	Percent	No.	Percent
None	2	8.7	6	24.0	8	16.7
Department Head*	4	17.4	3	12.0	7	14.6
Coaching	7	30.4	-	0.0	7	14.6
Home Room	3	13.0	4	16.0	7	14.6
Other**	16	69.6	16	64.0	32	66.7
Total	(23)		(25)		(48)	

*Served as chairperson of two or more areas of secondary vocational education programs.

**Examples reported by teachers included areas of responsibility such as "science teacher."

while 17.4 percent (4) of the beginning teachers were Department Heads. Thirty and four-tenths percent (7) were Coaches, 13.0 percent (3) had Home Room responsibilities and 69.6 percent (16) specified Other types of responsibilities.

As for the experienced teachers, 24 percent (6) had no other responsibilities, 12 percent (3) were Department Heads, and none of the experienced teachers had a Coaching responsibility. Sixteen percent (4) of experienced teachers were Home Room teachers and 64.0 percent (16) specified Other types of responsibilities.

Descriptive Analysis: Identification of Specific Problem Areas

The level of difficulty perceived by vocational production agriculture teachers was measured in terms of their responses to the statements related to pedagogical classroom instructional problems they might encounter in the classroom. The problems were classified into seven areas: Planning for Instruction (9 statements); Establishing Classroom Climate (11 statements); Management/Execution of Instruction (11 statements); Selecting and Using Instructional Materials/Aids, (7 statements); Evaluation of Students' Performances (7 statements); Future Farmers of America (FFA) (10 statements); and Supervised Occupational Experience Program (SOEP) (11 statements). Agreement on positive statements indicated teachers' perceptions of no problem, while agreement on negative statements indicated teachers' perceptions of problems in the particular area of classroom instruction. All responses to positive items were recoded so that the items became negative. After the recoding was done, a larger mean on any item

would indicate relatively more problem and a smaller mean would indicate relatively less problem. Items for which the scales were reversed are marked with an asterisk (*) preceding the item number whenever it appears.

The means and standard deviations for each statement according to teaching experience and problem area are given in the following tables. The means are interpreted as follows:

Range of the mean	Interpretation of Responses
Less than 2.5	Least Problem
2.5 - 3.5	Some Problem
More than 3.5	Most Problem

The results presented in this section are descriptive in nature. No statistical tests were used to compare the responses between the beginning and experienced vocational production agriculture teachers.

Planning for Instruction

The data in Table 8 present the means and standard deviations of responses on items related to problems in Planning for Instruction for both beginning and experienced vocational production agriculture teachers. The results indicated that beginning and experienced teachers perceived levels of difficulty differently in two areas. Beginning teachers perceived "Some Problem"; experienced teachers "Least Problem" in *(1) developing a written course of study for each class. However, beginning teachers perceived "Some Problem"; experienced teachers "Most Problem" in *(1) developing a written performance objective.

The means indicated that both beginning and experienced teachers perceived the "Most Problem" in two areas: *(1) planning for

TABLE 8.--Planning for instruction: mean and standard deviation of responses for beginning and experienced vocational production agriculture teachers and overall respondents

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
*Developing a written course of study for each class is relatively simple for me.	3.00	1.04	2.44$_L$	1.04	2.71	1.07
*Developing a written performance objective for each lesson taught requires very little time.	3.43	1.34	4.20$_M$	1.16	3.83	1.29
*It is relatively easy to determine the interests and needs of students.	3.26	1.01	2.96	.94	3.10	.97
*Planning for individual differences among students requires a small amount of time.	3.86$_M$	.89	4.16$_M$	.85	4.02	.87
I have difficulty in developing a weekly-monthly course calendar.	2.74	1.21	2.64	1.15	2.69	1.17
The lesson plans I develop for classes are usually not very effective.	2.09$_L$	.85	1.76$_L$	.60	1.92	.74
My lesson plans are not adequate for a full class period.	2.30$_L$	1.06	1.56$_L$	.71	1.92	.96
*When I outline class objectives, students readily understand them.	3.04	1.02	2.64	.91	2.83	.98
I never have enough time for class preparation each day.	3.91$_M$	1.11	3.60$_M$	1.29	3.75	1.21

*Positive items with scores reversed.
M = Most Problem
L = Least Problem

individual differences among students and (2) having enough time for class preparation each day. Both groups perceived "Some Problem" in three areas: *(1) determining interests and needs of students, (2) developing a weekly-monthly course calendar and (3) outlining class objectives. They perceived "Least Problem " in two areas: (1) developing effective lesson plans for classes and (2) developing adequate lesson plans for a full class period.

Establishing Classroom Climate

The data in Table 9 present the means and standard deviations of responses on items related to problems in Establishing Classroom Climate for both beginning and experienced vocational production agriculture teachers. The results indicated that beginning and experienced teachers perceived levels of difficulty differently in two areas. The beginning teachers perceived "Some Problem"; the experienced teachers "Least Problem" in *(1) keeping students' behavior under control in the classroom. The beginning teachers perceived "Least Problem"; experienced teachers "Some Problem" in (2) maintaining a neat, organized classroom.

The means indicated that production agriculture teachers did not perceive a major problem in any specific area. Both beginning and experienced teachers perceived "Least Problem" in nine areas: *(1) establishing good rapport with students, *(2) students pursuing assigned tasks, (3) dealing with students in an unbiased manner, *(4) creating classroom rules that facilitate positive student behavior, (5) involving students in decision-making situations, *(6) making students

TABLE 9.--Establishing classroom climate: mean and standard deviation of responses for beginning and experienced vocational production agriculture teachers and overall respondents

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
*The student behavior in my class is usually under control.	2.56	1.04	1.84$_L$	.55	2.19	.89
*Through my effort, the students easily establish good rapport with me.	2.48$_L$	.90	1.84$_L$	.62	2.15	.83
I never maintain a neat, organized classroom (e.g., desks and materials, etc.).	2.17$_L$	1.15	2.84	1.25	2.52	1.24
*Through my guidance, the students pursue assigned tasks most of the time.	2.35$_L$	.71	2.24$_L$	.60	2.29	.65
I deal with all of the students in a biased manner.	2.44$_L$	1.12	1.78$_L$	1.00	2.41	1.10
*Classroom rules facilitate positive student behavior most of the time.	2.35$_L$	.89	2.04$_L$	.54	2.19	.73
I seldom involve students in decision-making situations.	1.83$_L$	.78	1.72$_L$	.84	1.77	.81
*The students clearly understand expectations of their behavior.	2.43$_L$	1.04	1.92$_L$	.49	2.17	.83
*I always provide verbal feedback for acceptable or unacceptable behavior of students.	2.22$_L$	.67	2.08$_L$	.91	2.15	.80
I use derogatory language when talking to or about students.	1.83$_L$	.83	1.44$_L$	.58	1.63	.73
Techniques I use to maintain appropriate behavior are not effective.	2.26$_L$	.96	1.44$_L$	.51	1.83	.86

*Positive items with scores reversed.
L = Least Problem

understand expectations of their behavior, *(7) providing verbal feedback for acceptable or unacceptable behavior of students, (8) avoiding the use of derogatory language and (9) using effective techniques to maintain appropriate behavior of students.

Management/Execution of Instruction

The data in Table 10 present the means and standard deviations of responses on items related to problems in Management and Execution of Instruction for both beginning and experienced production agriculture teachers. The results indicated that beginning and experienced teachers perceived levels of difficulty differently in two areas: (1) helping students to work independently and (2) giving meaningful lesson summaries to the students. In both areas, the beginning teachers perceived "Some Problem" and the experienced teachers "Least Problem."

The means indicated that neither group of production agriculture teachers perceived a major problem in these specific areas. Both groups perceived "Some Problem" in five areas: *(1) getting students to show a great deal of interest when introducing a new lesson, *(2) providing students who finish their class assignments early with content-related enrichment activities, *(3) using 100 percent of class time for educational experiences, (4) getting students to do class work properly and *(5) purchasing needed supplies and equipment on time. They perceived "Least Problem" in four specific areas: *(1) using a variety of teaching techniques, (2) engaging students in group discussion, *(3) making students understand assignments, and *(4) managing and organizing classroom facilities and equipment effectively.

TABLE 10.--Management/execution of instruction: mean and standard deviation of responses for beginning and experienced vocational production agriculture teachers and overall respondents

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
*I have no difficulty in using a variety of teaching techniques.	2.35$_L$	.94	2.32$_L$	1.07	2.33	1.00
*The students show a great deal of interest when I introduce a new lesson.	2.83	.78	2.72	.79	2.77	.78
The students are seldom engaged in group discussions.	2.22$_L$	1.04	1.80$_L$	.58	2.00	.85
*When I give assignments, the students usually understand.	2.22$_L$	.67	2.25$_L$	.61	2.23	.63
*Through my efforts I provide students who finish early with content-related enrichment activities.	3.09	.90	2.88	.97	2.98	.93
*I usually use 100 percent of class time for educational experiences.	3.26	1.05	3.08	1.08	3.17	1.06
I have difficulty in getting students to do class work properly.	2.70	1.06	2.58	1.10	2.64	1.07
*I manage and organize classroom facilities and equipment effectively.	2.48$_L$	.79	2.48$_L$	.92	2.48	.85
I have difficulty in helping students to work independently.	2.61	.99	2.28$_L$	1.02	2.44	1.01
*I have a little difficulty purchasing needed supplies and equipment on time.	2.91	1.19	2.64	1.15	2.77	1.17
My summary of a lesson is not very meaningful to the students.	2.61	.94	1.96$_L$	.68	2.27	.87

*Positive items with scores reversed.
L = Least Problem

Selecting and Using Instructional Materials/Aids

The data in Table 11 present the means and standard deviations of responses on items related to problems in Selecting and Using Instructional Materials/Aids for both beginning and experienced production agriculture teachers. The results indicated that beginning and experienced teachers perceived levels of difficulty differently in two areas: *(1) selecting and using appropriate audiovidual aids for teaching and (2) obtaining adequate resource materials for classes. In both areas, the beginning teachers perceived "Some Problem" and the experienced teachers "Least Problem."

The means indicated that neither group of teachers perceived a major problem in these specific areas. They, however, perceived "Some Problem" in two areas: *(1) collecting objects and specimens for classroom teaching and (2) making use of computers in teaching; and they perceived "Least Problem" in three areas: (1) developing and using teacher-made materials, *(2) directing students to appropriate reading materials and (3) making use of community resources.

Evaluation of Students' Performance

The data in Table 12 present the means and standard deviations of responses on items related to problems in Evaluation of Students' Performance for both beginning and experienced production agriculture teachers. The results indicated that beginning and experienced teachers perceived levels of difficulty differently in four areas: (1) developing a system to evaluate each student, *(2) using objectives effectively as a basis for evaluation, (3) establishing performance standards for students, and *(4) developing methods of testing for

TABLE 11.--Selecting and using instructional materials/aids: mean and standard deviation of responses for beginning and experienced vocational production agriculture teachers and overall respondents

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
*I seldom have difficulty in selecting and using appropriate audiovisual aids for teaching (e.g., TV, films and filmstrips).	2.83	1.19	2.28_L	.84	2.54	1.05
I have difficulty in developing and using teacher-made materials.	2.48_L	1.04	2.44_L	1.23	2.46	1.13
*Collecting objects and specimens for classroom teaching is relatively simple for me.	3.13	1.01	2.68	.99	2.90	1.02
I seldom make use of computers in teaching my students.	3.00	1.28	2.75	1.36	2.87	1.31
*I usually direct students to appropriate reading materials (e.g., textbooks, magazines, handouts).	2.17_L	.49	2.00_L	.42	2.08	.46
I seldom make use of community resources (e.g., local farms, agribusinesses, and local resource persons).	2.14_L	.71	1.52_L	.51	1.81	.68
I have difficulty in obtaining adequate resource materials for my classes (e.g., textbooks and consumable goods).	3.04	1.26	2.00_L	1.04	2.50	1.26

*Positive items with scored reversed.
L = Least Problem

TABLE 12.--Evaluation of students' performance: mean and standard deviation of responses for beginning and experienced vocational production agriculture teachers and overall respondents

Item	Beginning Teachers Mean	S.d.	Experienced Teachers Mean	S.d.	Overall Respondents Mean	S.d.
I have difficulty in developing a system to evaluate each student.	2.66	1.13	2.20$_L$	1.08	2.43	1.12
*I have effectively established evaluation practices that are consistent with school policy.	2.14$_L$	.83	2.24$_L$	.88	2.19	.85
*I have effectively used objectives as a basis for evaluation.	2.83	.98	2.48$_L$	.82	2.65	.91
I seldom keep written records of students' daily progress.	2.91	1.31	2.60	1.26	2.75	1.28
*I have no difficulty determining students' grades.	2.43$_L$	.90	2.40$_L$	1.04	2.44	.96
I have difficulty establishing performance standards for students.	2.70	1.06	2.16$_L$	.94	2.42	1.03
*I have developed methods of testing for students' competence--skills, knowledge and attitudes.	2.61	.66	2.24$_L$	.78	2.42	.74

*Positive items with scores reversed.
L = Least Problem

students' competency. In these areas, the beginning teachers perceived "Some Problem" and the experienced teachers "Least Problem."

The means indicated that neither group of teachers perceived a major problem in these areas. Both groups perceived "Some Problem" in only one area: (1) keeping written records of students' daily progress. They perceived "Least Problem" in two areas: *(1) establishing effective evaluation practices that are consistent with school policy and *(2) determining students' grades.

Future Farmers of America (FFA)

The data in Table 13 present the means and standard deviations of responses on items related to problems in FFA programs for both beginning and experienced production agriculture teachers. The results indicated that beginning and experienced teachers perceived levels of difficulty differently in three areas: (1) encouraging all class members to become members of the FFA chapter, *(2) developing a written FFA program of activities and (3) teaching the FFA members budgeting practices. In these three areas the beginning teachers perceived "Some Problem" and experienced teachers "Least Problem."

The means indicated that the beginning and experienced teachers perceived "Most problem" in only one area: (1) guiding participation in FFA award programs and contests. Both groups perceived "Some Problem" in two areas: *(1) assisting FFA members in developing and financing a yearly program of activities, and (2) teaching and assisting students with record keeping. The teachers perceived "Least problem" in four areas: *(1) supervising FFA activities, *(2) preparing student FFA members for a leadership role, (3) assisting students in selecting appropriate chapter activities, and (4) counseling officers in carrying out the functions of their offices.

Supervised Occupational Experience Program (SOEP)

The data in Table 14 present the means and standard deviations of responses on items related to problems in SOEP for both beginning and experienced production agriculture teachers. The results indicated that beginning and experienced teachers perceived levels of difficulty differently in three areas: *(1) engaging students successfully in

TABLE 13.--Future Farmers of America (FFA): mean and standard deviation of responses for beginning and experienced vocational production agriculture teachers and overall respondents

Item	Beginning Teachers Mean	S.d.	Experienced Teachers Mean	S.d.	Overall Respondents Mean	S.d.
*I have no difficulty in supervising FFA activities.	1.96$_L$	.98	1.96$_L$	1.02	1.96	.99
*Preparing student FFA members for a leadership role is simple for me.	2.35$_L$	1.07	2.20$_L$	1.00	2.27	1.03
*Guiding participation in FFA award programs and contests requires little time.	4.56$_M$	.59	4.68$_M$	.48	4.62	.53
*Assisting FFA members in developing and financing a yearly program of activities is relatively simple for me.	3.45	1.01	2.72	1.17	3.06	1.15
I have not been successful in encouraging all class members to become a member of a FFA chapter.	3.00	1.23	2.38$_L$	1.31	2.67	1.30
I have difficulty in assisting students in selecting appropriate chapter activities.	2.17$_L$	.72	2.12$_L$	.88	2.15	.80
I seldom counsel officers in carrying out the functions of their offices.	2.14$_L$	.89	1.44$_L$	.51	1.77	.79
I have difficulty in teaching and assisting students with record keeping.	2.57	.95	2.52	1.16	2.54	1.05
*Developing a written FFA program of activities is simple for me.	2.73	.77	2.40$_L$	1.19	2.55	1.02
I have difficulty in teaching the members accepted budgeting practices for operating local organizations.	2.91	.92	2.12$_L$	.67	2.49	.88

*Positive items with scores reversed.
M = Most Problem
L = Least Problem

TABLE 14.--Supervised Occupational Experience Program (SOEP): mean and standard deviation of responses for beginning and experienced vocational production agriculture teachers and overall respondents

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
*I have been very successful in engaging students in supervised occupational experiences that are related to their occupational objectives.	3.19	.81	2.40_L	.87	2.76	.92
*Assisting students in developing a formal training agreement with their parents or employer is simple for me.	3.40	.82	2.96	.98	3.16	.93
*I seldom have difficulty in maintaining adequate SOEP records to determine student progress.	3.50	.91	3.00	1.08	3.23	1.03
I have difficulty in selecting and evaluating training stations to assist students in obtaining desired occupational competencies.	3.10	.94	2.56	1.00	2.80	1.00
I have difficulty in teaching and assisting students with SOEP record keeping.	2.68	.84	2.52	1.05	2.60	.95
I seldom use students' occupational experiences as topics for classroom study.	2.39_L	1.12	1.72_L	.84	2.04	1.03
I seldom coordinate classroom study with students' occupational experiences.	2.14_L	.77	1.68_L	.75	1.89	.79
*I usually provide students with occupational learning experiences consistent with classroom instructions.	2.52	.75	1.92_L	.64	2.20	.75
I seldom use school facilities to provide occupational learning experiences for the students.	2.09_L	.90	1.68_L	.99	1.88	.96

TABLE 14.--Continued

Item	Beginning Teachers Mean	S.d.	Experienced Teachers Mean	S.d.	Overall Respondents Mean	S.d.
*I have no difficulty in providing students with effective types of coordination, supervision and occupational guidance in their occupational experience program.	3.14	.96	2.88	1.01	3.00	.99
I have difficulty in assisting students in analyzing and using their occupational experience program records.	2.55	.86	2.40$_L$	1.08	2.47	.98

*Positive items with scores reversed.
L = Least Problem

supervised occupational experiences that are related to their occupational objectives, *(2) providing students with occupational learning experiences consistent with classroom instruction and (3) assisting students in analyzing and using their occupational experience program records. In these three areas, the beginning teachers perceived "Some Problem" and experienced teachers "Least Problem."

The means indicated that neither group of teachers perceived a major problem in these specific areas. Both groups perceived "Some Problem' in five areas: *(1) assisting students in developing a formal training agreement with their parents or employer, *(2) maintaining adequate SOEP records to determine student progress, (3) selecting and evaluating training stations to assist students in obtaining desired occupational competencies, (4) teaching and assisting students with SOEP record keeping and *(5) providing students with effective types of

coordination, supervision and occupational guidance in their occupational experience programs. They perceived "Least Problem" in three areas: (1) using students' occupational experience as a topic for classroom study, (2) coordinating classroom study with students' occupational experiences, and (3) using school facilities to provide occupational learning experiences for the students.

Descriptive Analysis: Identification of General Problem Areas

This section presents the level of difficulty in pedagogical classroom instructional problems perceived by vocational production agriculture teachers according to the general area of instructional problems. The responses on positive items were recoded to reflect the degree of problem perceived in each of the general areas of classroom instruction. The results indicated that beginning and experienced teachers perceived levels of difficulty differently in five areas: (1) Management/Execution of Instruction, (2) Selecting and Using Instructional Materials/Aids, (3) Evaluation of Students' Performance, (4) FFA and (5) SOE programs. In these five areas, the beginning teachers perceived "Some Problem" and the experienced teachers "Least Problem."

As shown in Table 15, the means indicated that production agriculture teachers did not perceive a major problem in any of the seven areas. However, both groups perceived "Some Problem" in only one area: (1) Planning for Instruction; and also "Least Problem" in one area: (1) Establishing Classroom Climate.

TABLE 15.--Mean and standard deviation of responses of beginning and experienced vocational production agriculture teachers related to pedagogical classroom instructional problems, according to instructional problem areas

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
Planning for Instruction.	3.07	.48	2.88	.48	2.97	.44
Establishing Classroom Climate.	2.27_L	.50	1.93_L	.33	2.09	.45
Management/Execution of Instruction	2.66	.40	2.46_L	.35	2.56	.39
Selecting and Using Instructional Materials/ Aids	2.69	.60	2.24_L	.48	2.45	.58
Evaluation of Students' Performance	2.61	.65	2.33_L	.52	2.47	.59
Future Farmers of America (FFA)	2.79	.34	2.46_L	.50	2.62	.46
Supervised Occupational Experience Program (SOEP)	2.78	.51	2.34_L	.53	2.55	.56

L = Least Problem

Inferential Analysis: Specific Problem Areas

Chi-square tests were used to examine the differences between beginning and experienced teachers with respect to their perceptions of classroom instructional problems according to the individual items in the questionnaire. The questionnaire items on classroom instructional problems were scored by the respondents according to the following Likert scale: (1) strongly disagree, (2) disagree, (3) undecided, (4) agree and (5) strongly agree. All responses to positive items (items that indicated no problems) were recoded so that the items became negative (items that indicated problems). After the recoding was done,

the larger mean on any item would indicate relatively more problem and the smaller mean would indicate relatively less problem. The results of the tests are presented in the following tables according to each problem area.

In order to answer the research question (number 3) mentioned at the beginning of this chapter, the following null hypothesis was tested for the seven classroom instructional areas:

Hypothesis

Ho^1: There were no significant differences between beginning and experienced Michigan vocational production agriculture teachers with respect to the problems they perceived in implementing classroom instructional programs of vocational agriculture.

Planning for Instruction

There were nine items related to problems in this area. The Chi-square values (X^2), degrees of freedom (d.f.) and actual level of significance (P) are given in Table 16. The results indicated that the beginning and experienced teachers differed significantly in their responses to only one item in the area of Planning for Instruction: (1) my lesson plans are not adequate for a full class period ($p \leq .05$). Since there was a significant difference in at least one specific area, the null hypothesis was rejected. It was concluded that beginning teachers differed from experienced teachers in planning adequate lessons for a full class period. Due to the rejection of the null hypothesis, the data were further analyzed by comparing the means of this item.

As shown in Table 17, further analysis of this item indicated that beginning teachers (mean of 2.30) perceived relatively more problems in planning adequate lessons for a full class period as

TABLE 16.--Planning for instruction: Chi-square tests on the relationship between perceptions of classroom instructional problems and teaching experience of vocational production agriculture teachers

Item	X^2	d.f.	P
Developing a written course of study for each class is relatively simple for me.	3.07	2	.22
Developing a written performance objective for each lesson taught requires very little time.	4.61	2	.10
It is relatively easy to determine the interests and needs of the students.	1.45	2	.48
Planning for individual differences among students requires a small amount of time.	2.57	2	.87
I have difficulty in developing a weekly-monthly course calendar.	0.28	2	.87
The lesson plans I develop for classes are usually not very effective.	2.73	2	.26
My lesson plans are not adequate for a full class period.	6.19	2	.05*
When I outline class objectives, students readily understand them.	2.20	2	.33
I never have enough time for class preparation each day.	0.86	2	.65

*Significant at alpha $\leq$ .05.

Table 17.--Mean and standard deviation (s.d.) of responses of beginning and experienced vocational production agriculture teachers for lesson plans

Problem	Teachers	n.	mean	s.d.
My lesson plans are not adequate for a full class period.	Beginning	23	2.30	1.06
	Experienced	25	1.56	.71

compared to experienced teachers (mean of 1.56). (Means for all classroom instructional specific areas in Appendix J.)

Establishing Classroom Climate

There were 11 items related to problems in this area. The results in Table 18 indicated that the beginning and experienced teachers differed significantly in their responses to four items in the area of Establishing Classroom Climate: *(1) student behavior in my classroom is usually under control ($p \leq .02$); *(2) through my effort, the students easily establish good rapport with me ($p \leq .04$); *(3) Students clearly understand expectations of their behavior ($p \leq .04$); and (4) techniques I use to maintain appropriate behavior are not effective ($p \leq .00$). Since there was a significant difference in at least one of the specific areas, the null hypothesis was rejected. It was concluded that beginning teachers differed from experienced teachers in controlling student behavior in the classroom, establishing good rapport with students, making students understand expectations of their behavior and effectiveness of techniques used to maintain appropriate behavior of students. Due to the rejection of the null hypothesis, the data were further analyzed by comparing the means of these items.

As shown in Table 19, further analysis of these items indicated that beginning teachers (mean of 2.57) perceived relatively more problem in controlling student behavior in the classroom as compared to experienced teachers (mean of 1.84).

The beginning teachers (mean of 2.48) perceived relatively more problem in establishing good rapport with students, as compared to experienced teachers (mean of 1.84).

TABLE 18.--Establishing classroom climate: Chi-square tests in the relationship between perceptions of classroom instructional problems and teaching experience of the vocational production agriculture teachers

Item	X^2	d.f.	P
The student behavior in my class is usually under control.	7.52	2	.02*
Through my effort, the students easily establish good rapport with me.	6.51	2	.04*
I never maintain a neat, organized classroom (e.g., desks and materials, etc.).	3.03	2	.22
Through my guidance, the students pursue assigned tasks most of the time.	0.35	2	.84
I deal with all of the students in a biased manner.	2.50	2	.29
Classroom rules facilitate positive student behavior most of the time.	2.96	2	.23
I seldom involve students in decision-making situations.	2.28	2	.32
The students clearly understand expectations of their behavior.	6.28	2	.04*
I always provide verbal feedback for acceptable or unacceptable behavior of students.	2.45	2	.29
I use derogatory language when talking to or about students.	2.50	2	.29
Techniques I use to maintain appropriate behavior are not effective.	13.73	2	.00***

*Significant at alpha $\leq$ .05
***Significant at alpha $\leq$ .001

The beginning teachers (mean of 2.43) perceived relatively more problem in making students understand expectations of their behavior as compared to experienced teachers (mean of 1.92).

The beginning teachers (mean of 2.26) perceived relatively more problem with the effectiveness of techniques used to maintain

Table 19.--Mean and standard deviation of responses of beginning and experienced vocational production agriculture teachers for student behavior, student-teacher rapport, students' understanding of expectations of their behavior and effectiveness of techniques used to maintain appropriate behavior of students

Problem	Teachers	n.	mean	s.d.
*The student behavior in my class is usually under control.	Beginning	23	2.56	1.04
	Experienced	25	1.84	.55
*Through my effort, the students easily establish good rapport with me.	Beginning	23	2.48	.90
	Experienced	25	1.84	.62
*The students clearly understand expectations of their behavior.	Beginning	23	2.43	1.04
	Experienced	25	1.92	.49
Techniques I use to maintain appropriate behavior are not effective.	Beginning	23	2.26	.96
	Experienced	25	1.44	.51

*Positive items with scores reversed.

appropriate behavior of students as compared to experienced teachers (mean of 1.44).

Management/Execution of Instruction

There were 11 items in this area. The results in Table 20 indicated that the beginning and experienced teachers differed significantly in their responses to only one specific item in the area of Management/Execution of Instruction: (1) my summary of a lesson is not very meaningful to the students ($p \leq .05$). Since there was a significant difference in at least one specific area, the null hypothesis was rejected. It was concluded that beginning teachers differed from experienced teachers in making a lesson summary very meaningful to the students. Due to the rejection of the null hypothesis, the data were further analyzed by comparing the means of this item.

TABLE 20.--Management/execution of instruction: Chi-square tests on the relationship between perceptions of classroom instructional problems and teaching experience of the vocational production agriculture teachers

Item	X^2	d.f.	P
I have no difficulty in using a variety of teaching techniques.	1.29	2	.53
The students show a great deal of interest when I introduce a new lesson.	0.40	2	.82
The students are seldom engaged in group discussions.	4.02	2	.13
When I give assignments, the students usually understand.	0.00	2	1.00
Through my efforts, I provide students who finish early with content-related enrichment activities.	1.93	2	.38
I usually use 100 percent of class time for educational experiences.	0.43	2	.80
I have difficulty in getting students to do class work properly.	0.68	2	.71
I manage and organize classroom facilities and equipment effectively.	0.95	2	.62
I have difficulty in helping students to work independently.	2.11	2	.35
I have a little difficulty purchasing needed supplies and equipment on time.	1.60	2	.45
My summary of a lesson is not very meaningful to the students.	6.04	2	.05*

*Significant at alpha $\leq$ .05

As shown in Table 21, further analysis of this item indicated that beginning teachers (mean of 2.61) perceived relatively more problem in making a lesson summary very meaningful to the students as compared to experienced teachers (mean of 1.96).

Table 21.--Mean and standard deviation (s.d.) of responses of beginning and experienced vocational production agriculture teachers for lesson summary

Problem	Teachers	n.	mean	s.d.
My summary of a lesson is not very meaningful to the students.	Beginning	23	2.61	.94
	Experienced	25	1.96	.68

Selecting and Using Instructional Materials/Aids

There were seven items in this area. The results in Table 22 indicated that the beginning and experienced teachers differed significantly in their responses to two specific items in the area of Selecting and Using Materials/Aids: (1) I seldom make use of community resources (e.g., local farms, agribusinesses, and local resource persons) ($p \leq .04$) and (2) I have difficulty in obtaining adequate resource materials for my classes (e.g., textbooks and consumable goods) ($p \leq .01$). Since there was a significant difference in at least one of the specific areas, the null hypothesis was rejected. It was concluded that beginning teachers differed from the experienced teachers in making use of community resources and obtaining adequate resource materials for classes. Due to the rejection of the null hypothesis, the data were further analyzed by comparing the means of these items.

As shown in Table 23, further analysis of these items indicated that beginning teachers (mean of 2.14) perceived relatively more problem in making use of community resources as compared to experienced teachers (mean of 1.52).

TABLE 22.--Selecting and using instructional materials/aids: Chi-square tests on the relationship between perceptions of classroom instructional problems and teaching experience of the vocational production agriculture teachers

Item	X^2	d.f.	P
I seldom have difficulty in selecting and using appropriate audio-visual aids for teaching (e.g., TV, films and filmstrips).	2.47	2	.29
I have difficulty in developing and using teacher-made materials.	0.04	2	.98
Collecting objects and specimens for classroom teaching is relatively simple for me.	2.97	2	.23
I seldom make use of computers in teaching my students.	0.75	2	.69
I usually direct students to appropriate reading materials (e.g., textbooks, magazines, handouts).	1.07	2	.58
I seldom make use of community resources (e.g., local farms, agri-businesses, and local resource persons).	6.36	2	.04*
I have difficulty in obtaining adequate resource materials for my classes (e.g., textbooks and consumable goods).	9.46	2	.01**

*Significant at alpha $\leq$ .05
**Significant at alpha $\leq$ .01

Table 23.--Mean and standard deviation of responses of beginning and experienced vocational production agriculture teachers for use of community resources and obtaining adequate resource materials for classes

Problem	Teachers	n.	mean	s.d.
I seldom make use of community resources (e.g., local farms, agribusinesses, and local resource persons.	Beginning	22	2.14	.71
	Experienced	25	1.52	.51
I have difficulty in obtaining adequate resource materials for my classes (e.g., text-books and consumable goods)	Beginning	23	3.04	1.26
	Experienced	25	2.00	1.04

The beginning teachers (mean 3.04) also perceived relatively more problems in obtaining adequate resource materials for classes as compared to experienced teachers (mean of 2.00).

Evaluation of Students' Performance

There were seven items in this area. The results reported in Table 24 indicated that the beginning and experienced teachers differed significantly in their responses to only one item in the area of Evaluation of Students' Performance: *(1) I have developed methods of testing for students' competence -- skills, knowledge and attitudes ($p \leq .02$). Since there was a significant difference in at least one specific area, the null hypothesis was rejected. It was concluded

TABLE 24.--Evaluation of students' performance: Chi-square tests on the relationship between perceptions of classroom instructional problems and teaching experience of the vocational production agriculture teachers

Item	X^2	d.f.	P
I have difficulty in developing a system to evaluate each student.	1.76	2	.42
I have effectively established evaluation practices that are consistent with school policy.	2.05	2	.36
I have effectively used objectives as a basis for evaluation.	2.04	2	.36
I seldom keep written records of students' daily progress.	0.52	2	.77
I have no difficulty determining students' grades.	1.20	2	.55
I have difficulty establishing performance standards for students.	4.99	2	.08
I have developed methods of testing for students' competence--skills, knowledge and attitudes.	8.08	2	.02*

*Significant at alpha $\leq .05$

that beginning teachers differed from experienced teachers in developing methods of testing for students' competency. Due to the rejection of the null hypothesis, the data were further analyzed by comparing the means of this item.

As shown in Table 25, further analysis of this item indicated that beginning teachers (mean of 2.61) perceived relatively more problems in developing methods of testing for students' competence -- skills, knowledge and attitudes as compared to experienced teachers (mean of 2.24).

Table 25.--Mean and standard deviation of responses of beginning and experienced vocational production agriculture teachers for testing students' competency

Problem	Teachers	n.	mean	s.d.
*I have developed methods of testing for students' competency -- skills, knowledge and attitudes	Beginning	23	2.61	.66
	Experienced	25	2.24	.78

*Positive item with score reversed.

Future Farmers of America (FFA)

There were 10 items in this area. The results in Table 26 indicated that the beginning and experienced teachers differed significantly in their responses to two specific items in this area: *(1) developing written FFA program activities is simple for me ($p \leq .00$) and (2) I have difficulty in teaching the FFA members budgeting practices for operating local organizations ($p \leq .00$). Since there was a significant difference in at least one of the specific areas, the

null hypothesis was rejected. It was concluded that beginning teachers differed from experienced teachers in developing a written FFA program of activities and teaching the FFA members accepted budgeting practices for operating local organizations. Due to the rejection of the null hypothesis, the data were further analyzed by comparing the means of these items.

TABLE 26.--Future Farmers of America (FFA): Chi-square tests on the relationship between perceptions of classroom instructional problems and teaching experience of the vocational production agriculture teachers

Item	X^2	d.f.	P
I have no difficulty in supervising FFA activities.	1.16	2	.56
Preparing student FFA members for a leadership role is simple for me.	0.30	2	.86
Guiding participation in FFA award programs and contests requires little time.	1.11	1	.29
Assisting FFA members in developing and financing a yearly program of activities is relatively simple for me.	4.11	2	.13
I have not been successful in encouraging all class members to become a member of a FFA chapter.	2.31	2	.32
I have difficulty in assisting students in selecting appropriate chapter activities.	0.14	2	.93
I seldom counsel officers in carrying out the functions of their offices.	4.97	2	.08
I have difficulty in teaching and assisting students with record keeping.	2.04	2	.36
Developing a written FFA program of activities is simple for me.	10.96	2	.00***
I have difficulty in teaching the members accepted budgeting practices for operating local organizations.	11.81	2	.00***

***Significant at alpha $\leq$ .001

As shown in Table 27, further analysis of these items indicated that beginning teachers (mean of 2.73) perceived relatively more problem in developing a written FFA program of activities as compared to experienced teachers (mean of 2.40).

Furthermore, beginning teachers (mean of 2.91) perceived relatively more problem in teaching the FFA members accepted budgeting practices for operating local organizations, as compared to experienced teachers (mean of 2.12).

Table 27.--Mean and standard deviation of responses of beginning and experienced vocational production agriculture teachers for FFA program development and teaching FFA members budgeting practices

Problem	Teachers	n.	mean	s.d.
*Developing a written FFA program of activities is simple for me.	Beginning	22	2.73	.77
	Experienced	25	2.40	1.19
I have difficulty in teaching the FFA members accepted budgeting practices for operating local organizations.	Beginning	22	2.91	.92
	Experienced	25	2.12	.67

*Positive item with score reversed.

Supervised Occupational Experience Program (SOEP)

There were 11 items in the SOEP area. The results in Table 28 indicated that the beginning and experienced teachers differed significantly in their responses to two specific items in the area of SOEP: *(1) I have been very successful in engaging students in supervised occupational experiences that are related to their occupational objectives ($p \leq .01$) and *(2) I usually provide students with occupational learning experiences consistent with classroom

TABLE 28.--Supervised Occupational Experience Program (SOEP): Chi-square tests on the relationship between perceptions of classroom instructional problems and teaching experience of the experienced vocational production agriculture teachers

Item	X^2	d.f.	P
I have been very successful in engaging students in supervised occupational experiences that are related to their occupational objectives	9.01	2	.01**
Assisting students in developing a formal training agreement with their parents or employer is simple for me.	3.59	2	.17
I seldom have difficulty in maintaining adequate SOEP records to determine student progress.	2.89	2	.24
I have difficulty in selecting and evaluating training stations to assist students in obtaining desired occupational competencies.	4.78	2	.09
I have difficulty in teaching and assisting students with SOEP record keeping.	2.01	2	.37
I seldom use students' occupational experiences as topics for classroom study.	4.47	2	.11
I seldom coordinate classroom study with students' occupational experiences.	1.09	2	.58
I usually provide students with occupational learning experiences consistent with classroom instructions.	6.14	2	.05*
I seldom use school facilities to provide occupational learning experiences for the students.	1.50	2	.47
I have no difficulty in providing students with effective types of coordination, supervision and occupational guidance in their occupational experience program.	4.79	2	.09
I have difficulty in assisting students in analyzing and using their occupational experience program records.	4.67	2	.10

*Significant at alpha $\leq$ .05
**Significant at alpha $\leq$ .01

instruction ($p \leq .05$). Since there was a significant difference in at least one specific area, the null hypothesis was rejected. It was concluded that beginning teachers differed from experienced teachers in engaging students successfully in S.O.E. that are related to their occupational objectives and providing students with occupational learning experiences consistent with classroom instructions. Due to the rejection of the null hypothesis, the data were further analyzed by comparing the means of these items.

As shown in Table 29, further analysis of these items indicated that beginning teachers (mean of 3.19) perceived relatively more problem in engaging students successfully in S.O.E. that are related to their occupational objectives as compared to experienced teachers (mean of 2.40).

Table 29.--Mean and standard deviation of responses of beginning and experienced vocational agriculture teachers for engaging students in S.O.E. and providing students with occupational learning experiences

Problem	Teachers	n.	mean	s.d.
*I have been very successful in engaging students in supervised occupational experiences that are related to their occupational objectives.	Beginning	21	3.19	.81
	Experienced	25	2.40	.87
*I usually provide students with occupational learning experiences consistent with classroom instructions.	Beginning	21	2.52	.75
	Experienced	25	1.92	.64

*Positive items with scores reversed.

The beginning teachers (mean of 2.52) also perceived relatively more problem in providing students with occupational learning

experiences consistent with classroom instructions as compared to experienced teachers (mean of 1.92).

Inferential Analysis: General Problem Areas

In order to answer the research question (number 4) mentioned at the beginning of this chapter, the following null hypothesis was tested:

Hypothesis

Ho^2: There were no significant differences among Michigan vocational production agriculture teachers with respect to the problems they perceive in some areas of classroom instruction that could be attributed to their length of teaching experience.

Teaching Experience

Teachers were classified into two groups according to the number of years of their teaching experience. Those who had taught for less than five years were classified as "beginning" teachers and those who had taught for five or more years were classified as "experienced" teachers.

There were a total of 66 items related to pedagogical classroom instructional problems. These items were classified into seven problem areas: Planning for Instruction, Establishing Classroom Climate, Management/Execution of Instruction, Selecting and Using Instructional Materials/Aids, Evaluation of Students' Performance, Future Farmers of America (FFA) and Supervised Occupational Experience Program (SOEP). The level of difficulty perceived by the Michigan vocational production agriculture teachers in each problem area was measured by the average difficulty of all items in each area. The t-test was used to examine if there was a difference in the level of difficulty perceived by beginning and experienced teachers in each of the seven problem areas.

The results of the t-tests are presented in Table 30. The results indicated that the levels of difficulty were significantly ($p \leq .05$) different for the beginning and experienced teachers in four areas: Establishing Classroom Climate, Selecting and Using Instructional Materials/Aids, Future Farmers of America (FFA) and Supervised Occupational Experience Program (SOEP). This led to the rejection of the null hypothesis in these four areas. It was concluded that beginning teachers differed from experienced teachers in the areas of Establishing Classroom Climate, Selecting and Using Instructional Materials/Aids, Future Farmers of America (FFA) and Supervised Occupational Experience Programs (SOEP). Due to the rejection of the null hypothesis, the data were further analyzed by comparing the means of these areas.

As shown in Table 30, further analysis of these areas indicated that beginning teachers (mean of 2.27) perceived relatively more problem in Establishing Classroom Climate as compared to experienced teachers (mean of 1.93); beginning teachers (mean of 2.69) perceived relatively more problem in Selecting and Using Instructional Materials/Aids as compared to experienced teachers (mean of 2.24); beginning teachers (mean of 2.79) perceived relatively more problem in FFA as compared to experienced teachers (mean of 2.46) and beginning teachers (mean of 2.78) perceived relatively more problem in SOEP as compared to experienced teachers (mean of 2.34). In these four areas, beginning teachers perceived a significantly higher degree of difficulty than experienced teachers.

In order to answer the research question (number 4), the following null hypothesis was tested:

Table 30.--Pedagogical classroom instructional problems according to teaching experience of beginning and experienced vocational production agriculture teachers

Area	n.	mean	s.d.	t	P
Planning for Instruction					
Beginning teachers	23	3.06	.38	1.44	.16
Experienced teachers	25	2.88	.48		
Establishing classroom climate					
Beginning teachers	23	2.27	.50	2.77	.01**
Experienced teachers	25	1.93	.33		
Management/Execution of Instruction					
Beginning teachers	23	2.66	.40	1.81	.08
Experienced teachers	25	2.46	.35		
Selecting and Using Instructional Materials/Aids					
Beginning teachers	23	2.69	.60	2.89	.01**
Experienced teachers	25	2.24	.48		
Evaluation of Students' Performance					
Beginning teachers	23	2.61	.65	1.67	.10
Experienced teachers	25	2.33	.52		
Future Farmers of America (FFA)					
Beginning teachers	23	2.79	.34	2.64	.01**
Experienced teachers	25	2.46	.50		
Supervised Occupational Experience Program (SOEP)					
Beginning teachers	23	2.78	.51	2.95	.01**
Experienced teachers	25	2.34	.53		

**Significant at alpha $\leq$.01

Hypothesis

Ho^3: There are no significant differences between beginning and experienced Michigan vocational production agriculture teachers with respect to the problems they perceive in some areas of classroom instruction that can be attributed to their local building administrative support.

Local Administrative Support

Teachers were classified according to their perceived school local administrative support for their vocational agriculture program. Those who responded "nonexistent to moderate support" were classified into one group and those who responded "supportive to very supportive" were classified into another group. The t-test was used to examine if there was a difference in the level of difficulty perceived by these two groups of vocational production agriculture teachers. The results of the t-tests are presented in Table 31.

The results indicated that the levels of difficulty were significantly ($p \leq .05$) different for those teachers who responded "nonexistent to moderate support" and those who responded "supportive to very supportive" in only one area: Selecting and Using Instructional Materials/Aids. This led to the rejection of the null hypothesis. It was concluded that the group of teachers who reported nonexistent to moderate administrative support differed from the group of teachers who responded supportive to very supportive. Due to the rejection of the null hypothesis, the data were further analyzed by comparing the means of this area.

As shown in Table 31, further analysis of this area indicated that the group of teachers who reported nonexistent to moderate administrative support (mean of 2.74) perceived a significantly higher

Table 31.--Pedagogical classroom instructional problems according to local administrative support of beginning and experienced vocational production agriculture teachers

Area	n.	mean	s.d.	t	P
Planning for Instruction					
Nonexistent to moderate	16	3.04	.39	.79	.43
Supportive to very supportive	32	2.94	.45		
Establishing classroom climate					
Nonexistent to moderate	16	2.14	.50	.51	.61
Supportive to very supportive	32	2.07	.43		
Management/Execution of Instruction					
Nonexistent to moderate	16	2.65	.29	1.22	.23
Supportive to very supportive	32	2.51	.42		
Selecting and Using Instructional Materials/Aids					
Nonexistent to moderate	16	2.74	.53	2.57	.01**
Supportive to very supportive	32	2.31	.56		
Evaluation of Students' Performance					
Nonexistent to moderate	16	2.34	.50	-1.05	.30
Supportive to very supportive	32	2.53	.53		
Future Farmers of America (FFA)					
Nonexistent to moderate	16	2.69	.42	.83	.41
Supportive to very supportive	32	2.58	.48		
Supervised Occupational Experience Program (SOEP)					
Nonexistent to moderate	16	2.76	.50	1.85	.07
Supportive to very supportive	25	2.45	.57		

**Significant at alpha $\leq$.01

degree of difficulty in Selecting and Using Instructional Materials/ Aids as compared to the group of teachers who responded supportive to very supportive (mean of 2.31).

In order to answer the research question (number 4) the following null hypothesis was tested:

Hypothesis

Ho^4: There were no significant differences between beginning and experienced Michigan vocational production agriculture teachers with respect to the problems they perceived in some areas of classroom instruction that could be attributed to their responsibilities other than teaching agriculture.

Teachers' Other Responsibilities

Teachers were classified into two groups according to the number of other responsibilities held by the vocational production agriculture teachers apart from teaching agriculture. Those who held one responsibility were classified into one group and those who held two or more responsibilities were classified into another group. The t-test was used to examine whether there was a difference in the level of difficulty perceived by these two groups of teachers. The data in Table 32 present the results of the t-tests.

The results indicated that there were no significant differences in the perceived levels of difficulty in any of the seven classroom instructional areas for the teachers who held one other responsibility and those teachers who held two or more other responsibilities. This led to the acceptance of the null hypothesis. It was concluded that there were no significant differences between the teachers who held one other responsibility and those teachers who held two or more other responsibilities in their perceived levels of difficulty in the areas

Table 32.--Pedagogical classroom instructional problems according to teachers' other responsibilities of beginning and experienced vocational production agriculture teachers

Area	n.	mean	s.d.	t	p
Planning for Instruction					
One responsibility	36	2.97	.45	-.10	.92
Two/more responsibilities	12	2.98	.40		
Establishing classroom climate					
One responsibility	36	2.04	.44	-1.30	.20
Two/more responsibilities	12	2.23	.47		
Management/Execution of Instruction					
One responsibility	36	2.54	.40	-.62	.54
Two/more responsibilities	12	2.62	.36		
Selecting and Using Instructional Materials/Aids					
One responsibility	36	2.40	.52	-1.13	.27
Two/more responsibilities	12	2.62	.72		
Evaluation of Students' Performance					
One responsibility	36	2.45	.65	-.39	.70
Two/more responsibilities	12	2.52	.42		
Future Farmers of America (FFA)					
One responsibility	36	2.58	.47	-.98	.33
Two/more responsibilities	12	2.73	.43		
Supervised Occupational Experience Program (SOEP)					
One responsibility	36	2.49	.57	-1.32	.19
Two/more responsibilities	12	2.73	.50		

of Planning for Instruction, Establishing Classroom Climate, Management/Execution of Instruction, Selecting and Using Instructional Materials/Aids, Evaluation of Students' Performance, FFA and SOEP.

In order to answer the research question (number 4), the following null hypothesis was tested:

Hypothesis

Ho^5: There were no significant differences between beginning and experienced Michigan vocational production agriculture teachers with respect to the problems they perceived in some areas of classroom instruction that could be attributed to their students' classification (rural or non-rural).

Students' Classification

Teachers were classified into two groups according to the proportion of rural students in their schools. The teachers were classified into one group if the proportion of rural students was 50 percent or more and were classified into another group if the proportion of rural students was less than 50 percent. The t-test was used to determine if there was a difference in the level of difficulty perceived by teachers who taught rural students when compared with those teachers who taught non-rural students (urban/suburban). The data in Table 33 present the results of the t-tests.

The results indicated that there were no significant differences in the perceived levels of difficulty in any of the areas for the teachers who taught rural students when compared with those teachers who taught urban/suburban students. This led to the acceptance of the null hypothesis. It was concluded that there were no significant differences between the teachers who taught rural students when compared with those teachers who taught urban/suburban students in

Table 33.--Pedagogical classroom instructional problems according to students' classification of beginning and experienced vocational production agriculture teachers

Area	n.	mean	s.d.	t	p
Planning for Instruction					
Rural	33	2.97	.43	.53	.60
Urban/suburban	15	2.92	.48		
Establishing classroom climate					
Rural	33	2.11	.40	.53	.60
Urban/suburban	15	2.04	.56		
Management/Execution of Instruction					
Rural	33	2.54	.40	.35	.73
Urban/suburban	15	2.59	.39		
Selecting and Using Instructional Materials/Aids					
Rural	33	2.47	.60	.23	.82
Urban/suburban	15	2.43	.55		
Evaluation of Students' Performance					
Rural	33	2.55	.60	1.47	.15
Urban/suburban	15	2.28	.55		
Future Farmers of America (FFA)					
Rural	33	2.55	.60	1.47	.15
Urban/suburban	15	2.28	.55		
Supervised Occupational Experience Program (SOEP)					
Rural	33	2.56	.59	.20	.84
Urban/suburban	15	2.53	.52		

their perceived levels of difficulty in the areas of Planning for Instruction, Establishing Classroom Climate, Management/Execution of Instruction, Selecting and Using Instructional Materials/Aids, Evaluation of Students' Performance, FFA and SOEP.

Summary

In this chapter, data generated by the beginning and experienced Michigan vocational production agriculture teachers were analyzed. Descriptive statistics -- percentages, means and standard deviations, Chi-square, and t-tests -- were employed to identify pedagogical classroom instructional problems as related to the Specific Classroom Instructional Problem Areas, General Problem Areas, Differences in Specific Problem Areas and Differences in Problems according to the General Areas of Classroom Instruction.

A Summary of the Findings, Conclusions and Recommendations is presented in Chapter V.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is to provide a summary of this study, to draw conclusions based on the data analysis, and to make recommendations for the Michigan vocational agricultural education program and further research.

The purpose of this study was to identify and compare pedagogical classroom instructional problems perceived by beginning and experienced Michigan vocational production agriculture teachers. To achieve this purpose, the following areas were investigated:

1. The problems perceived by beginning and experienced Michigan vocational production agriculture teachers in implementing classroom instructional programs of vocational production agriculture.

2. The areas of the classroom instruction of the vocational production agriculture program as perceived to cause major problems for beginning and experienced Michigan vocational production agriculture teachers.

3. The differences in problems perceived by beginning Michigan vocational production agriculture teachers and those perceived by experienced teachers.

4. The differences among Michigan vocational production agriculture teachers with respect to the problems they perceived in some areas of classroom instruction that can be attributed to their length of teaching experience, local building administrative support as perceived by the teachers, teachers' other responsibilities and students' classification (rural or non-rural).

The data for this study were secured through the use of a questionnaire. The questionnaire was designed to collect data from

beginning and experienced Michigan vocational production agriculture teachers. Forty-eight (92%) of the 52 selected teachers completed the final questionnaire (Appendix H); 23 (48%) teachers from the beginning group and 25 (52%) teachers from the experienced group.

The collected data were analyzed by using the Statistical Package for the Social Sciences (SPSS) at Michigan State University. Descriptive statistics -- frequencies, percentages, means and standard deviations; chi-square; and t-tests -- were employed in the analysis of data.

The 48 respondents included in the study were classified into two groups according to the number of years of their teaching experience. Those who had taught less than five years were classified as "beginning" teachers and those who had taught for five or more years were classified as "experienced" teachers. There were 23 beginning teachers, 17 (73.9%) males and six (26.1%) females, who completed the questionnaire. Twenty-five males from the experienced group also completed the questionnaire. There were no female teachers in the experienced group.

In terms of experience for beginning teachers, 12 (52.2%) of them had one year of teaching experience, three (13%) had two years, two (8.7%) had three years and six (26.1%) had four years. As for experienced teachers, two (8%) had five to nine years, six (24%) had 10-14 years, four (16%) had 15-19 years, five (20%) had 20-24 years and eight (32%) had over 25 years. In terms of enrollment in high school vocational agriculture programs, 23 (100%) beginning teachers had been enrolled, while only 19 (76%) of the experienced teachers had been enrolled in the program. In terms of FFA membership in high school, 23

(100%) beginning teachers had been members, while only 19 (76.9%) experienced teachers had been FFA members. In terms of teachers' other responsibilities in school for beginning teachers, two (8.7%) teachers had no other responsibilities, four (17.4%) were department heads, seven (30.4%) were coaches, three (13.0%) had home room responsibilities and 16 (69.6%) specified other types of responsi bilities. As for the experienced teachers, six (24%) had no other responsibilities, three (12%) were department heads, and none of them had coaching responsibilities. Four (16%) were home room teachers and 16 (64.0%) also specified other types of responsibilities.

Summary of the Findings

The following findings are related to specific research questions and null hypotheses.

Specific Problems of Michigan Vocational Production Agriculture Teachers

Research Question 1: What were the problems perceived by beginning and experienced Michigan vocational production agriculture teachers in implementing classroom instructional programs of vocational production agriculture?

The study indicated the following specific problems perceived by both the beginning and experienced Michigan vocational production agriculture teachers in the general area of (A) Planning for Instruction.

The beginning and experienced teachers perceived "Most Problem" in the following:

1. Planning for individual differences among students.
2. Having enough time for class preparation each day.

They perceived "Some Problem" in the following:

1. Determining interests and needs of students.
2. Developing a weekly-monthly course calendar.
3. Outlining class objectives.

The teachers perceived "Least Problem" in the following:

1. Developing effective lesson plans for classes.
2. Developing adequate lesson plans for a full class period.

Additionally, beginning teachers perceived "Some Problem"; experienced teachers "Least Problem" in the following:

1. Developing a written course of study for each class.

Beginning teachers perceived "Some Problem"; experienced teachers "Most Problem" in the following:

1. Developing a written performance objective.

The study indicated the following specific problems perceived by both the beginning and experienced Michigan vocational production agriculture teachers in the general area of (B) Establshing Classroom Climate.

Neither the beginning nor the experienced teachers perceived a major problem; however, they perceived "Least Problem" in the following:

1. Establishing good rapport with students.
2. Students pursuing assigned tasks.
3. Dealing with students in an unbiased manner.
4. Creating classroom rules that facilitate positive student behavior.
5. Involving students in decision-making situations.
6. Making students understand expectations of their behavior.

7. Providing verbal feedback for acceptable or unacceptable behavior of students.

8. Avoiding the use of derogatory language.

9. Using effective techniques to maintain appropriate behavior of students.

Also, beginning teachers perceived "Some Problem"; experienced teachers "Least Problem" in the following:

1. Keeping students' behavior under control in the classroom.

Beginning teachers perceived "Least Problem"; experienced teachers perceived "Some Problem" in the following:

1. Maintaining a neat, organized classroom.

The study indicated the following specific problems perceived by both the beginning and experienced Michigan vocational production agriculture teachers in the general area of (C) Management/Execution of Instruction.

In this area, neither the beginning nor the experienced teachers perceived a major problem. They perceived "Some Problem" in the following:

1. Getting students to show a great deal of interest when introducing a new lesson.

2. Providing students who finish their class assignments early with content-related enrichment activities.

3. Using 100% of class time for educational experiences.

4. Getting students to do class work properly.

5. Purchasing needed supplies and equipment on time.

They perceived "Least Problem" in the following:

1. Using a variety of teaching techniques.

2. Engaging students in group discussion.

3. Making students understand assignments.

4. Managing and organizing classroom facilities and equipment effectively.

Beginning teachers also perceived "Some Problem"; experienced teachers perceived "Least Problem" in the following:

1. Helping students to work independently.
2. Giving meaningful lesson summaries to the students.

The study indicated the following specific problems perceived by both the beginning and the experienced Michigan vocational production agriculture teachers in the general area of (D) Selecting and Using Instructional Materials/Aids.

Neither group of teachers perceived a major problem; however they perceived "Some Problem" in the following:

1. Collecting objects and specimens for classroom teaching.
2. Making use of computers in teaching.

They perceived "Least Problem" in the following:

1. Developing and using teacher-made materials.
2. Directing students to appropriate reading materials.
3. Making use of community resources.

Additionally, beginning teachers perceived "Some Problem"; experienced teachers "Least Problem" in the following:

1. Selecting and using appropriate audiovisual aids for teaching.
2. Obtaining adequate resource materials for classes.

The study indicated the following specific problems perceived by both the beginning and the experienced Michigan vocational production agriculture teachers in the general area of (E) Evaluation of Students' Performance.

In this area, the teachers did not perceive a major problem; however they perceived "Some Problem" in the following:

1. Keeping written records of students' daily progress.

They perceived "Least Problem" in the following:

1. Establishing effective evaluation practices that are consistent with school policy.
2. Determining students' grades.

Also, beginning teachers perceived "Some Problem"; experienced teachers "Least Problem" in the following:

1. Developing a system to evaluate each student.
2. Using objectives effectively as a basis for evaluation.
3. Establishing performance standards for students.
4. Developing methods of testing for students' competency.

The study indicated the following specific problems perceived by both the beginning and the experienced Michigan vocational production agriculture teachers in the general area of (F) Future Farmers of America (FFA).

Both beginning and experienced teachers perceived "Most Problem" in the following:

1. Guiding students' participation in FFA award programs.

The teachers perceived "Some Problem" in the following:

1. Assisting FFA members in developing and financing a yearly program of activities.
2. Teaching and assisting students with record keeping.

They perceived "Least Problem" in the following:

1. Supervising FFA activities.
2. Preparing student FFA members for a leadership role.
3. Assisting students in selecting appropriate chapter activities.

4. Counseling officers in carrying out the functions of their offices.

Also, beginning teachers perceived "Some Problem"; experienced teachers perceived "Least Problem" in the following:

1. Encouraging all class members to become members of the FFA chapter.
2. Developing a written FFA program of activities.
3. Teaching the FFA members budgeting practices.

The study indicated the following specific problems perceived by both the beginning and the experienced Michigan vocational production agriculture teachers in the general area of (G) Supervised Occupational Experience Program (SOEP).

Neither the beginning nor the experienced teachers perceived a major problem; however they perceived "Some Problem" in the following:

1. Assisting students in developing a formal training agreement with their parents or employer.
2. Maintaining adequate SOEP records to determine student progress.
3. Selecting and evaluating training stations to assist students in obtaining desired occupational competencies.
4. Teaching and assisting students with SOEP record keeping.
5. Providing students with effective types of coordination, supervision and occupational guidance in their occupational experience program.

They perceived "Least Problem" in the following:

1. Using students' occupational experiences as topics for classroom study.
2. Coordinating classroom study with students' occupational experiences.
3. Using school facilities to provide occupational learning experiences for the students.

Additionally, the beginning teachers perceived "Some Problem"; experienced teachers "Least Problem" in the following:

1. Engaging students successfully in supervised occupational experiences that are related to their occupational objectives.
2. Providing students with occupational learning experiences consistent with classroom instruction.
3. Assisting students in analyzing and using their occupational experience program records.

General Problem Areas of Michigan Vocational Production Agriculture Teachers

Research Question 2: Which areas of classroom instruction of the vocational production agriculture program were perceived to cause major problems for beginning and experienced Michigan vocational production agriculture teachers?

The study indicated that the total population of the production agriculture teachers surveyed did not perceive major problems in any of the seven general problem areas. However, they perceived "Some Problem" in only one area:

1. Planning for Instruction.

They perceived "Least Problem" in one area:

1. Establishing Classroom Climate.

Also, beginning teachers perceived "Some Problem"; experienced teachers perceived "Least Problem" in the following:

1. Management/Execution of Instruction.
2. Selecting and Using Instructional Materials/Aids.
3. Evaluation of Students' Performance.
4. FFA.
5. SOEP.

(Means and standard deviations for classroom instructional general areas in Appendix K.)

Differences in Specific Problem Areas for Beginning and Experienced Michigan Vocational Production Agriculture Teachers

Research Question 3: Were the problems perceived by beginning Michigan vocational production agriculture teachers different from those perceived by experienced teachers?

The study indicated that beginning and experienced teachers differed significantly in the degree of difficulty perceived in one or more specific areas in each of the seven general areas. In each area, the beginning teachers perceived greater difficulty than experienced teachers in each of the following areas:

A. Planning for Instruction
    1. planning adequate lessons for a full class period.

B. Establishing Classroom Climate
    1. Controlling student behavior in the classroom.
    2. Establishing good rapport with students.
    3. Students' understanding of expectations of their behavior.
    4. Using effective techniques to maintain appropriate behavior of students.

C. Management/Execution of Instruction
    1. Making lesson summaries very meaningful to students.

D. Selecting and Using Instructional Materials/Aids
    1. Making use of community resources.
    2. Obtaining adequate resource materials for classes.

E. Evaluation of Students' Performance
    1. Developing methods of testing students' competency.

F. Future Farmers of America (FFA)
    1. Developing a written FFA program of activities.
    2. Teaching FFA members budgeting practices for operating local organizations.

G. Supervised Occupational Experience Program (SOEP)

1. Engaging students successfully in S.O.E. that are related to their occupational objectives.

2. Providing students with occupational learning experiences consistent with classroom instruction.

(Means of significant specific areas in Appendix I-1.)

Differences in Problems According to Areas of Classroom Instruction

Research Question 4: Were there differences among Michigan vocational production agriculture teachers with respect to the problems they perceive in some areas of classroom instruction that could be attributed to their length of teaching experience, local building administrative support as perceived by the teachers, teachers' other responsibilities, and students' classification (rural or non-rural)?

The study indicated significant differences in problems of beginning and experienced Michigan vocational production agriculture teachers in the level of difficulty they perceived in the following classroom instructional area as:

A. Teaching Experience

1. Establishing Classroom Climate.

2. Selecting and Using Instructional Materials/Aids.

3. Implementing the Future Farmers of America Program.

4. Supervising Occupational Experience Program.

In these four classroom instructional areas, beginning teachers perceived greater difficulty than experienced teachers. (Means of significant general areas in Appendix I-1.)

B. Local Administrative Support

The study indicated that there was a significant difference in the area of Selecting and Using Instructional Materials/Aids. The group of teachers who reported "non-existent" to "moderate" administrative support perceived relatively more problem in Selecting

and Using Instructional Materials/Aids as compared to the group who reported their administration as "supportive" to "very supportive." (Means of significant general area in Appendix I-3.)

C. Teachers' Other Responsibilities

The study showed that there were no significant differences in any of the seven classroom instructional areas for the teachers who held one other responsibility and those teachers who held two or more other responsibilities apart from teaching agriculture (Table 32).

D. Students' Classification (Rural or Non-Rural)

The study indicated that there were no significant differences in the levels of difficulty in any of the seven classroom instructional areas for the teachers who taught rural students when compared with those teachers who taught urban/suburban students (Table 33).

Conclusions

Based on the findings of this study, the following conclusions were reached:

1. Neither beginning nor experienced teachers perceived major levels of difficulty (problems) in any of the seven general areas of classroom instruction. This study confirms the findings revealed by the 1985 studies of Sunderhaus and Miller, and King and Miller.

2. Both beginning and experienced teachers perceived moderate levels of difficulty (problems) in only one classroom instructional general areas: Planning for Instruction.

3. Beginning and experienced teachers perceived minor levels of difficulty (problems) in only one classroom instructional general area: Establishing Classroom Climate.

4. With the exception of two areas, Planning for Instruction and Establishing Classroom Climate, the beginning teachers perceived greater levels of difficulty (problems) than experienced teachers. A similar result was found in the Miller and Scheid study in 1984. They reported that teachers with more than five years of teaching experience perceived fewer problems when compared with first-year teachers.

5. The only pedagogical classroom instructional area in which beginning vocational production agriculture teachers had obvious need for pre-service education was Planning for Instruction.

6. The only pedagogical classroom instructional area in which experienced vocational production agriculture teachers had obvious need for in-service education was Planning for Instruction.

7. Beginning teachers perceived a significantly higher degree of difficulty (problems) than experienced teachers in four pedagogical classroom instructional areas: Establishing Classroom Climate, Selecting and Using Instructional Materials/Aids, FFA and SOEP. (Means of significant general areas in Appendix I-2.)

8. There were significant differences between beginning and experienced teachers' perceptions of level of difficulty (problems) in only 13 of the 66 (19.7%) specific instructional areas included in the questionnaire. (Means of significant specific areas in Appendix I-1.)

9. There was a significant difference in the area of Selecting and Using Instructional Materials/Aids for teachers who perceived "non-existent to moderate" administrative support when compared with those teachers who perceived "supportive to very supportive" administrative support. The teachers who received "non-existent to moderate" administrative support perceived relatively more problem when compared with those teachers who received more administrative support. (Means of significant general area in Appendix I-3). This study confirms the findings of the studies conducted by Lamberth in 1959, Dillon in 1978, Moore and Camp in 1979, Miller in 1980 and Babbitt in 1986. They reported lack of administrative support as one of the problems facing vocational agriculture teachers.

10. There were no significant differences in the perceived levels of difficulty (problems) in any of the seven classroom instructional general areas for teachers who held one other responsibility, apart from teaching agriculture, and those teachers who held two or more other responsibilities (Table 32). These findings were inconsistent with the findings in the study conducted by Moore and Camp in 1979. They found that experienced teachers reported the problem of having too many required extracurricular activities.

11. There were no significant differences in the perceived levels of difficulty (problems) in any of the seven classroom instructional general areas for teachers who taught rural students when compared with those teachers who taught urban/suburban students (Table 33).

The above conclusions should be interpreted with caution because of the small sample size used in this study.

Recommendations

Based on the findings and conclusions of this study, the following recommendations are presented for improving the Michigan vocational agricultural education program, and for further research. The recommendations have been divided into two sections:

1. Recommendations for the Michigan Vocational Agricultural Education Program.
2. Recommendations for Further Research.

Recommendations for the Michigan Vocational Agricultural Education Program

Recommendations for the Michigan vocational agricultural education program are as follows:

1. No major changes need be made in pre-service and inservice teacher education programs for Michigan vocational production agriculture teachers.
2. Pre-service and inservice teacher education programs for Michigan vocational production agriculture teachers should be developed or modified to strengthen the pedagogical classroom instructional area, Planning for Instruction.
3. The pre-service teacher education program for Michigan vocational production agriculture teachers should be modified and strengthened to improve teacher competency in the seven general classroom instructional areas.
4. The results of this study should be reported to Michigan secondary school administrators relative to the need for providing adequate instructional materials/aids.

Recommendations for Further Research

The recommendations for further research are as follows:

1. A similar study should be conducted using a larger sample size to determine if the findings are generalizable.

2. Similar investigations should be conducted to identify and compare pedagogical classroom instructional problems of male and female beginning and experienced vocational production agriculture teachers.

3. A study should be carried out to determine if the size of student enrollment in vocational production agriculture programs would have an effect on the teachers' classroom instruction.

4. A study should be made to identify the nature and scope of the responsibilities that Michigan vocational production agriculture teachers assume apart from teaching agriculture, and to determine what impact, if any, they would have on teacher effectiveness.

5. An in-depth study should be made of rural and urban/suburban students enrolled in vocational production agriculture programs to determine if there is a relationship between place of residence and classroom problems.

6. A number of studies have been completed to identify the problems of first-year teachers of vocational agriculture. Therefore, it is recommended that the data collected for this study be analyzed to compare the responses of the first-year teachers (12) with those of experienced teachers. The results could provide greater insight into the need for modifying the Michigan pre-service program for vocational production agriculture teachers.

APPENDICES

APPENDIX A

LETTER TO THE MEMBERS OF THE JURY

Agricultural & Extension Education

Michigan State University
410 Agriculture Hall
East Lansing, Michigan 48824 - 1039
(517) 355 - 6580

January 16, 1986

Dear Sir:

I am conducting a research study to compare pedagogical classroom instructional problems of beginning and experienced Michigan production agriculture teachers.

You have been chosen to serve on a jury for the purpose of identifying experienced and successful vocational production agriculture teachers in Michigan, giving equal consideration to both male and female teachers. Select teachers who fulfill criteria No. 1, No. 2, and two or more of the remaining four criteria.

Enclosed with the cover letter are lists of Michigan, 1985-1986 production agriculture teachers and criteria for selecting those teachers.

Please indicate your response by placing a check mark (✓) beside each name in the list if he/she meets the specified criteria.

Thank you for your assistance.

Sincerely yours,

Babatunde Kolade

Babatunde Kolade

BK/sa

APPENDIX B

NAMES OF JURY MEMBERS

Jury Committee Members

Teacher Educators in Agriculture

1. Dr. Harrison Gardner
   Dept. of Agricultural & Extension Education
   Michigan State University
   East Lansing, MI 48824

2. Dr. O. Donald Meaders
   Dept. of Agricultural & Extension Education
   Michigan State University
   East Lansing, MI 48824

3. Dr. Frank Bobbitt
   Dept. of Agricultural & Extension Education
   Michigan State University
   East Lansing, MI 48824

State Supervisors in Agriculture

1. Mr. Richard Karelse
   Consultant, Vocational Education in Agriculture
   Michigan Department of Education
   Lansing, MI 48909

2. Mr. Gerald Centers
   FFA Project Consultant
   Agriculture Education Institute
   Michigan State University
   East Lansing, MI 48824

APPENDIX C

LETTER TO THE TEACHER EDUCATORS

Agricultural & Extension Education

Michigan State University
410 Agriculture Hall
East Lansing, Michigan 48824 - 1039
(517) 355 - 6580

January 16, 1986

Dear Sir:

Enclosed is a draft copy of the proposed survey instrument for my doctoral study. Please review the instrument, offer your suggestions for clarity and validity, and return to my box in the department by January 23, 1986.

Your cooperation is essential to my success.

Sincerely yours,

Babatunde Kolade

Babatunde Kolade

BK/sa

APPENDIX D

LETTER TO THE PILOT-TEST COMMITTEE

Agricultural & Extension Education

Michigan State University
410 Agriculture Hall
East Lansing, Michigan 48824 - 1039
(517) 355 - 6580

March 19, 1986

Dear Sir:

You have been identified by Department of Agricultural and Extension Education Faculty and Michigan Department of Education Staff as a very professional and successful teacher. We need your assistance in completing an important study.

I am conducting a research study to compare pedagogical classroom instructional problems of beginning and experienced Michigan Vocational production agriculture teachers. The results of this study should have several implications for the development and modification of preservice and inservice education programs in Michigan. These modifications should greatly assist beginning and experienced teachers.

Enclosed is a copy of a proposed questionnaire for the study. Please assist by (1) responding to all items in this questionnaire; and (2) making suggestions for improving the questionnaire in the right-hand margin.

Please return the questionnaire in the self-addressed, stamped envelope by March 21, 1986.

Your cooperation in this study will be greatly appreciated.

Sincerely,

Babatunde Kolade

Babatunde Kolade
Ph.D. Graduate Student

Harrison Gardner

Harrison Gardner, Professor
Agricultural & Extension Education

APPENDIX E

COVER LETTER AND RETURN POSTCARD

TO RESPONDENTS

Agricultural & Extension Education

Michigan State University
410 Agriculture Hall
East Lansing, Michigan 48824 - 1039
(517) 355 - 6580

April 10, 1986

Dear Agriculture Teachers,

I am certain that you are interested in assisting beginning vocational agriculture teachers. Dr. Gardner and I are, also. To achieve this, I am conducting a Ph.D. research study to "compare pedagogical classroom instructional problems of beginning and experienced Michigan vocational production agriculture teachers." The results of this study should have several implications for the development and modification of preservice and inservice education programs in Michigan. These modifications should greatly assist beginning and experienced teachers.

Your assistance is needed by responding to the enclosed questionnaire. Please respond to all items. You as a correspondent will remain anonymous. Your responses will be held strictly confidential and all the information given will be used only for professional purposes. Completion of the survey is voluntary and the return of the survey constitutes your consent.

Please complete and return the enclosed post card immediately.

It will take about twenty minutes of your time to complete the questionnaire. Feel free to phone either of us at 355-6580 if you have any questions concerning the study.

Please complete the enclosed questionnaire and return it in the self-addressed stamped envelope by April 24, 1986.

Your cooperation in this study will be greatly appreciated.

Sincerely,

Babatunde Kolade

Babatunde Kolade
Ph.D. Graduate Student

Harry Gardner

Harrison Gardner, Professor
Agricultural & Extension Education

RETURN POST CARD

Please check one of the boxes below and mail it to me immediately.

☐ I am completing your questionnaire and returning it under separate cover.

☐ I have received your questionnaire, but do not wish to participate in the research.

Sincerely,

B. Kolade

APPENDIX F

LETTER OF THANK YOU/REMINDER

TO THE RESPONDENTS

Agricultural & Extension Education

Michigan State University
410 Agriculture Hall
East Lansing, Michigan 48824 - 1039
(517) 355 - 6580

April 29, 1986

Dear Colleague:

A short time ago you should have received a questionnaire concerning "A Comparison of Pedagogical Classroom Instructional Problems of Beginning and Experienced Michigan Vocational Production Agriculture Teachers."

We thank those of you who have responded. If you have not responded to the questionnaire, would you please take a few minutes and complete the questionnaire. We realize that you are very busy, but, your participation is very essential to the success of this study. Twenty minutes of your time will greatly assist several teachers.

Enclosed is another copy of the questionnaire for your convenience. Please complete the questionnaire and return it in the self-addressed stamped envelope by May 13, 1986.

Thank you for your cooperation. Our best to you as you complete another school year.

Professionally,

Babatunde Kolade

Babatunde Kolade
Ph.D. Graduate Student

Harry Gardner

Dr. Harrison Gardner
Professor, Dept. of Agricultural
and Extension Education

bsc
Enclosure

APPENDIX G

LETTER OF APPROVAL FROM MSU COMMITTEE ON RESEARCH INVOLVING HUMAN SUBJECTS

MICHIGAN STATE UNIVERSITY

UNIVERSITY COMMITTEE ON RESEARCH INVOLVING
HUMAN SUBJECTS (UCRIHS)
238 ADMINISTRATION BUILDING
(517) 355-2186

EAST LANSING • MICHIGAN • 48824-1046

April 4, 1986

Mr. Babatunde Kolade
1525 H Spartan Village
East Lansing, Michigan 48823

Dear Mr. Kolade:

Subject: Proposal Entitled, "A Comparison of Pedagogical Classroom Instructional Problems of Beginning and Experienced Michigan Vocational Production Agriculture Teachers"

I am pleased to advise that I concur with your evaluation that this project is exempt from full UCRIHS review, and approval is herewith granted for conduct of the project.

You are reminded that UCRIHS approval is valid for one calendar year. If you plan to continue this project beyond one year, please make provisions for obtaining appropriate UCRIHS approval prior to April 4, 1987.

Any changes in procedures involving human subjects must be reviewed by the UCRIHS prior to initiation of the change. UCRIHS must also be notified promptly of any problems (unexpected side effects, complaints, etc.) involving human subjects during the course of the work.

Thank you for bringing this project to my attention. If I can be of any future help, please do not hesitate to let me know.

Sincerely,

Henry E. Bredeck
Chairman, UCRIHS

HEB/jms

cc: Dr. Harrison Gardner

APPENDIX H

QUESTIONNAIRE TO THE RESPONDENTS

A COMPARISON OF PEDAGOGICAL CLASSROOM INSTRUCTIONAL PROBLEMS PERCEIVED BY BEGINNING AND EXPERIENCED MICHIGAN VOCATIONAL PRODUCTION AGRICULTURE TEACHERS

BY

Babatunde Kolade

Department of Agricultural & Extension Education
Michigan State University
410 Agriculture Hall
East Lansing, MI 48824

QUESTIONNAIRE

PART I: - Educational and Occupational Background Information

DIRECTIONS: - Please check the appropriate response for each item.

1. Gender

   ___1. Male
   ___2. Female

2. Number of years you have been a vocational agriculture teacher (including the current year) ___

3. Were you enrolled in a vocational agriculture program in high school?

   ___1. Yes
   ___2. No

   If yes, were you an FFA member?

   ___1. Yes
   ___2. No

4. How would you perceive local administrative support for your vocational agriculture program?

   ___1. Nonexistent
   ___2. Somewhat supportive
   ___3. Moderate to fair
   ___4. Supportive
   ___5. Very supportive

5. What responsibilities do you have other than teaching agriculture?

   ___1. None
   ___2. Department head
   ___3. Coaching
   ___4. Home room
   ___5. Other (Specify)_____

6. How would you characterize your students? (What percent in each category?)

   %

   ___1. Rural
   ___2. Urban
   ___3. Suburban

PART II: - Following is a list of statements held by a number of teachers. Some are favorable and some are unfavorable to effective teaching.

DIRECTIONS: - Please circle one response that corresponds with your opinion in regard to each statement.

5 = Strongly Agree (SA)
4 = Agree (A)
3 = Undecided (U)
2 = Disagree (D)
1 = Strongly Disagree (SD)
0 = Not Familiar (NF)

		SA	A	U	D	SD	NF
A.	Planning for Instruction						
7.	Developing a written course of study for each class is relatively simple for me.	5	4	3	2	1	0
8.	Developing a written performance objective for each lesson taught requires very little time.	5	4	3	2	1	0
9.	It is relatively easy to determine the interests and needs of students.	5	4	3	2	1	0
10.	Planning for individual differences among students requires a small amount of time.	5	4	3	2	1	0
11.	I have difficulty in developing a weekly-monthly course calendar.	5	4	3	2	1	0
12.	The lesson plans I develop for classes are usually not very effective.	5	4	3	2	1	0
13.	My lesson plans are not adequate for a full class period.	5	4	3	2	1	0
14.	When I outline class objectives, students readily understand them.	5	4	3	2	1	0
15.	I never have enough time for class preparation each day.	5	4	3	2	1	0
B.	Establishing Classroom Climate						
16.	The student behavior in my class is usually under control.	5	4	3	2	1	0
17.	Through my effort, the students easily establish good rapport with me.	5	4	3	2	1	0
18.	I never maintain a neat, organized classroom (e.g., desks and materials, etc.).	5	4	3	2	1	0
19.	Through my guidance, the students pursue assigned tasks most of the time.	5	4	3	2	1	0
20.	I deal with all of the students in a biased manner.	5	4	3	2	1	0
21.	Classroom rules facilitate positive student behavior most of the time.	5	4	3	2	1	0
22.	I seldom involve students in decision-making situations.	5	4	3	2	1	0
23.	The students clearly understand expectations of their behavior.	5	4	3	2	1	0
24.	I always provide verbal feedback for acceptable or unacceptable behavior of students.	5	4	3	2	1	0
25.	I use derogatory language when talking to or about students.	5	4	3	2	1	0
26.	Techniques I use to maintain appropriate behavior are not effective.	5	4	3	2	1	0
C.	Management/Execution of Instruction						
27.	I have no difficulty in using a variety of teaching techniques.	5	4	3	2	1	0

		SA	A	U	D	SD	NF
28.	The students show a great deal of interest when I introduce a new lesson.	5	4	3	2	1	0
29.	The students are seldom engaged in group discussions.	5	4	3	2	1	0
30.	When I give assignments, the students usually understand.	5	4	3	2	1	0
31.	Through my efforts I provide students who finish early with content-related enrichment activities.	5	4	3	2	1	0
32.	I usually use 100% of class time for educational experiences.	5	4	3	2	1	0
33.	I have difficulty in getting students to do class work properly.	5	4	3	2	1	0
34.	I manage and organize classroom facilities and equipment effectively.	5	4	3	2	1	0
35.	I have difficulty in helping students to work independently.	5	4	3	2	1	0
36.	I have a little difficulty purchasing needed supplies and equipment on time.	5	4	3	2	1	0
37.	My summary of a lesson is not very meaningful to the students.	5	4	3	2	1	0
D.	Selecting and Using Instructional Materials/Aids						
38.	I seldom have difficulty in selecting and using appropriate audiovisual aids for teaching (e.g., TV, films and filmstrips).	5	4	3	2	1	0
39.	I have difficulty in developing and using teacher-made materials.	5	4	3	2	1	0
40.	Collecting objects and specimens for classroom teaching is relatively simple for me.	5	4	3	2	1	0
41.	I seldom make use of computers in teaching my students.	5	4	3	2	1	0
42.	I usually direct students to appropriate reading materials (e.g., textbooks, magazines, handouts).	5	4	3	2	1	0
43.	I seldom make use of community resources (e.g., local farms, agribusinesses, and local resource persons).	5	4	3	2	1	0
44.	I have difficulty in obtaining adequate resource materials for my classes (e.g., textbooks and consumable goods).	5	4	3	2	1	0
E.	Evaluation of Students' Performance						
45.	I have difficulty in developing a system to evaluate each student.	5	4	3	2	1	0
46.	I have effectively established evaluation practices that are consistent with school policy.	5	4	3	2	1	0
47.	I have effectively used objectives as a basis for evaluation.	5	4	3	2	1	0
48.	I seldom keep written records of students' daily progress.	5	4	3	2	1	0
49.	I have no difficulty determining students' grades.	5	4	3	2	1	0
50.	I have difficulty establishing performance standards for students.	5	4	3	2	1	0
51.	I have developed methods of testing for students' competence--skills, knowledge and attitudes.	5	4	3	2	1	0
F.	Future Farmers of America (FFA)						
52.	I have no difficulty in supervising FFA activities.	5	4	3	2	1	0
53.	Preparing student FFA members for a leadership role is simple for me.	5	4	3	2	1	0

		SA	A	U	D	SD	NF
54.	Guiding participation in FFA award programs and contests requires little time.	5	4	3	2	1	0
55.	Assisting FFA members in developing and financing a yearly program of activities is relatively simple for me.	5	4	3	2	1	0
56.	I have not been successful in encouraging all class members to become a member of a FFA chapter.	5	4	3	2	1	0
57.	I have difficulty in assisting students in selecting appropriate chapter activities.	5	4	3	2	1	0
58.	I seldom counsel officers in carrying out the functions of their offices.	5	4	3	2	1	0
59.	I have difficulty in teaching and assisting students with record keeping.	5	4	3	2	1	0
60.	Developing written FFA program activities is simple for me.	5	4	3	2	1	0
61.	I have difficulty in teaching the members accepted budgeting practices for operating local organizations.	5	4	3	2	1	0

G. Supervised Occupational Experience Program (SOEP)

62.	I have been very successful in engaging students in supervised occupational experiences that are related to their occupational objectives.	5	4	3	2	1	0
63.	Assisting students in developing a formal training agreement with their parents or employer is simple for me.	5	4	3	2	1	0
64.	I seldom have difficulty in maintaining adequate SOEP records to determine student progress.	5	4	3	2	1	0
65.	I have difficulty in selecting and evaluating training stations to assist students in obtaining desired occupational competencies.	5	4	3	2	1	0
66.	I have difficulty in teaching and assisting students with SOEP record keeping.	5	4	3	2	1	0
67.	I seldom use students' occupational experiences as topics for classroom study.	5	4	3	2	1	0
68.	I seldom coordinate classroom study with students' occupational experiences.	5	4	3	2	1	0
69.	I usually provide students with occupational learning experiences consistent with classroom instructions.	5	4	3	2	1	0
70.	I seldom use school facilities to provide occupational learning experiences for the students.	5	4	3	2	1	0
71.	I have no difficulty in providing students with effective types of coordination, supervision and occupational guidance in their occupational experience program.	5	4	3	2	1	0
72.	I have difficulty in assisting students in analyzing and using their occupational experience program records.	5	4	3	2	1	0

APPENDIX I

SUMMARY OF SIGNIFICANT STATISTICAL RESULTS

Table I-1.--Specific problems of classroom instruction in which beginning and experienced vocational production agriculture teachers differed significantly ($p \leq .05$) in their perception of problems.

Problem	Mean	
	Beginning	Experienced
Planning for Instruction	3.07	2.88
My lesson plans are not adequate for a full class period.	2.30	1.56
Establishing Classroom Climate	2.27	1.93
*The student behavior in my class is usually under control.	2.56	1.84
*Through my effort, the students easily establish good rapport with me.	2.48	1.84
*The students clearly understand expectations of their behavior.	2.43	1.92
Techniques I use to maintain appropriate behavior of students are not effective.	2.26	1.44
Management/Execution of Instruction	2.66	2.46
My summary of a lesson is not very meaningful to the students.	2.61	1.96
Selecting and Using Instructional Materials/Aids	2.69	2.24
I seldom make use of community resources (e.g., local farms, agribusinesses and local resource persons).	2.14	1.52
I have difficulty in obtaining adequate resource materials for my classes (e.g., textbooks and consumable goods).	3.04	2.00
Evaluation of Students' Performance	2.61	2.33
*I have developed methods of testing for students' competency -- skills, knowledge and attitudes.	2.61	2.24
FFA	2.79	2.46
*Developing a written FFA program of activities is simple for me.	2.73	2.40
I have difficulty in teaching the FFA members accepted budgeting practices for operating local organizations.	2.91	2.12
SOEP	2.78	2.34
*I have been very successful in engaging students in supervised occupational experiences that are related to their occupational objectives.	3.19	2.40
*I usually provide students with occupational learning experiences consistent with classroom instruction.	2.52	1.92

*Positive items with scores reversed.
Higher mean indicates greater level of difficulty (problem).

Table I-2--General problem areas of classroom instruction in which beginning and experienced vocational production agriculture teachers differed significantly ($p \leq .05$) in their perception of problems.

Problem	Mean	
	Beginning	Experienced
Establishing Classroom Climate.	2.27	1.93
Selecting and Using Instructional Materials/Aids	2.69	2.24
Future Farmers of America (FFA)	2.79	2.46
Supervised Occupational Experience Program (SOEP)	2.78	2.34

Higher mean indicates greater level of difficulty (problem).

Table I-3--General problem area of classroom instruction in which vocational production agriculture teachers who responded "Non-existent to moderate" administrative support and those who responded "Supportive to very supportive" administrative support differed significantly ($p \leq .05$) in their perception of problems.

Problem	Mean	
	Non-Existent to Moderate Group	Supportive to Very Supportive Group
Selecting and Using Instructional Materials/Aids	2.74	2.31

Higher mean indicates greater level of difficulty (problem).

APPENDIX J

SUMMARY OF MEANS AND STANDARD DEVIATIONS FOR ALL DATA

Table J.--Means and standard deviations of responses on items related to classroom instruction for both (overall) beginning and experienced production agriculture teachers

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
A. Planning for Instruction	3.07	.38	2.88	.48	2.97	.44
*7. Developing a written course of study for each class is relatively simple for me.	3.00	1.04	2.44	1.04	2.71	1.07
*8. Developing a written performance objective for each lesson taught requires very little time.	3.43	1.34	4.20	1.16	3.83	1.29
*9. It is relatively easy to determine the interests and needs of students.	3.26	1.01	2.96	.94	3.10	.97
*10. Planning for individual differences among students requires a small amount of time.	3.86	.89	4.16	.85	4.02	.87
11. I have difficulty in developing a weekly-monthly course calendar.	2.74	1.21	2.64	1.15	2.69	1.17
12. The lesson plans I develop for classes are usually not very effective.	2.09	.85	1.76	.60	1.92	.74
13. My lesson plans are not adequate for a full class period.	2.30	1.06	1.56	.71	1.92	.96
*14. When I outline class objectives, students readily understand them.	3.04	1.02	2.64	.91	2.83	.98
15. I never have enough time for class preparation each day.	3.91	1.11	3.60	1.29	3.75	1.21

Table J.--Continued

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
B. Establishing Classroom Climate	2.27	.50	1.93	.33	2.09	.44
*16. The student behavior in my class is usually under control.	2.56	1.04	1.84	.55	2.19	.89
*17. Through my effort, the students easily establish good rapport with me.	2.48	.90	1.84	.62	2.15	.83
18. I never maintain a neat, organized classroom (e.g., desks and materials, etc.).	2.17	1.15	2.84	1.25	2.52	1.24
*19. Through my guidance, the students pursue assigned tasks most of the time.	2.35	.71	2.24	.60	2.29	.65
20. I deal with all of the students in a biased manner.	2.44	1.12	1.78	1.00	2.41	1.10
*21. Classroom rules facilitate positive student behavior most of the time.	2.35	.89	2.04	.54	2.19	.73
22. I seldom involve students in decision-making situations.	1.83	.78	1.72	.84	1.77	.81
*23. The students clearly understand expectations of their behavior.	2.43	1.04	1.92	.49	2.17	.83
*24. I always provide verbal feedback for acceptable or unacceptable behavior of students.	2.22	.67	2.08	.91	2.15	.80
25. I use derogatory language when talking to or about students.	1.83	.83	1.44	.58	1.63	.73

Table J.--Continued

Item	Beginning Teachers Mean	Beginning Teachers S.d.	Experienced Teachers Mean	Experienced Teachers S.d.	Overall Respondents Mean	Overall Respondents S.d.
26. Techniques I use to maintain appropriate behavior are not effective.	2.26	.96	1.44	.51	1.83	.86
C. Management/Execution of Instruction	2.66	.40	2.46	.35	2.56	.39
*27. I have no difficulty in using a variety of teaching techniques.	2.35	.94	2.32	1.07	2.33	1.00
*28. The students show a great deal of interest when I introduce a new lesson.	2.83	.78	2.72	.79	2.77	.78
29. The students are seldom engaged in group discussions.	2.22	1.04	1.80	.58	2.00	.85
*30. When I give assignments, the students usually understand.	2.22	.67	2.25	.61	2.23	.63
*31. Through my efforts I provide students who finish early with content-related enrichment activities.	3.09	.90	2.88	.97	2.98	.93
*32. I usually use 100% of class time for educational experiences.	3.26	1.05	3.08	1.08	3.17	1.06
33. I have difficulty in getting students to do class work properly.	2.70	1.06	2.58	1.10	2.64	1.07
*34. I manage and organize classroom facilities and equipment effectively.	2.48	.79	2.48	.92	2.48	.85
35. I have difficulty in helping students to work independently.	2.61	.99	2.28	1.02	2.44	1.01

Table J.--Continued

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
36. I have a little difficulty purchasing needed supplies and equipment on time.	2.91	1.19	2.64	1.15	2.77	1.17
37. My summary of a lesson is not very meaningful to the students.	2.61	.94	1.96	.68	2.27	.87
D. Selecting and Using Instructional Materials/Aids	2.69	.60	2.24	.48	2.45	.58
*38. I seldom have difficulty in selecting and using appropriate audiovisual aids for teaching (e.g., TV, films and filmstrips).	2.83	1.19	2.28	.84	2.54	1.05
39. I have difficulty in developing and using teacher-made materials.	2.48	1.04	2.44	1.23	2.46	1.13
*40. Collecting objects and specimens for classroom teaching is relatively simple for me.	3.13	1.01	2.68	.99	2.90	1.02
41. I seldom make use of computers in teaching my students.	3.00	1.28	2.75	1.36	2.87	1.31
*42. I usually direct students to appropriate reading materials (e.g., textbooks, magazines, handouts).	2.17	.49	2.00	.42	2.08	.46
43. I seldom make use of community resources (e.g., local farms, agribusinesses, and local resource persons).	2.14	.71	1.52	.51	1.81	.68
44. I have difficulty in obtaining adequate resource materials for my classes (e.g., textbooks and consumable goods).	3.04	1.26	2.00	1.04	2.50	1.26

Table J.--Continued

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
E. Evaluation of Students' Performance	2.61	.65	2.33	.52	2.47	.59
45. I have difficulty in developing a system to evaluate each student.	2.66	1.13	2.20	1.08	2.43	1.12
*46. I have effectively established evaluation practices that are consistent with school policy.	2.14	.83	2.24	.88	2.19	.85
*47. I have effectively used objectives as a basis for evaluation.	2.83	.98	2.48	.82	2.65	.91
48. I seldom keep written records of students' daily progress.	2.91	1.31	2.60	1.26	2.75	1.28
*49. I have no difficulty determining students' grades.	2.43	.90	2.40	1.04	2.44	.96
50. I have difficulty establishing performance standards for students.	2.70	1.06	2.16	.94	2.42	1.03
*51. I have developed methods of testing for students' competence--skills, knowledge and attitudes.	2.61	.66	2.24	.78	2.42	.74
F. Future Farmers of America (FFA)	2.79	.34	2.46	.50	2.62	.46
52. I have no difficulty in supervising FFA activities.	1.96	.98	1.96	1.02	1.96	.99
*53. Preparing student FFA members for a leadership role is simple for me.	2.35	1.07	2.20	1.00	2.27	1.03
*54. Guiding participation in FFA award programs and contests+ requires little time.	4.56	.59	4.68	.48	4.62	.53

Table J.--Continued

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
*55. Assisting FFA members in developing and financing a yearly program of activities is relatively simple for me.	3.45	1.01	2.72	1.17	3.06	1.15
56. I have not been successful in encouraging all class members to become a member of a FFA chapter.	3.00	1.23	2.38	1.31	2.67	1.30
57. I have difficulty in assisting students in selecting appropriate chapter activities.	2.17	.72	2.12	.88	2.15	.80
58. I seldom counsel officers in carrying out the functions of their offices.	2.14	.89	1.44	.51	1.77	.79
59. I have difficulty in teaching and assisting students with record keeping.	2.57	.95	2.52	1.16	2.54	1.05
*60. Developing written FFA program activities is simple for me.	2.73	.77	2.40	1.19	2.55	1.02
61. I have difficulty in teaching the members accepted budgeting practices for operating local organizations.	2.91	.92	2.12	.67	2.49	.88
G. Supervised Occupational Experience Program (SOEP)	2.78	.51	2.34	.53	2.55	.56
*62. I have been very successful in engaging students in supervised occupational experiences that are related to their occupational objectives.	3.19	.81	2.40	.87	2.76	.92
*63. Assisting students in developing a formal training agreement with their parents or employer is simple for me.	3.40	.82	2.96	.98	3.16	.93

Table J.--Continued

Item	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
64. I seldom have difficulty in maintaining adequate SOEP records to determine student progress.	3.50	.91	3.00	1.08	3.23	1.03
65. I have difficulty in selecting and evaluating training stations to assist students in obtaining desired occupational competencies.	3.10	.94	2.56	1.00	2.80	1.00
66. I have difficulty in teaching and assisting students with SOEP record keeping.	2.68	.84	2.52	1.05	2.60	.95
67. I seldom use students' occupational experiences as topics for classroom study.	2.39	1.12	1.72	.84	2.04	1.03
68. I seldom coordinate classroom study with students' occupational experiences.	2.14	.77	1.68	.75	1.89	.79
*69. I usually provide students with occupational learning experiences consistent with classroom instructions.	2.52	.75	1.92	.64	2.20	.75
70. I seldom use school facilities to provide occupational learning experiences for the students.	2.09	.90	1.68	.99	1.88	.96
*71. I have no difficulty in providing students with effective types of coordination, supervision and occupational guidance in their occupational experience program.	3.14	.96	2.88	1.01	3.00	.99
72. I have difficulty in assisting students in analyzing and using their occupational experience program records.	2.55	.86	2.40	1.08	2.47	.98

*Positive items with scores reversed.
Higher mean indicates greater level of difficulty (problem).

APPENDIX K

SUMMARY OF MEANS AND STANDARD DEVIATIONS FOR CLASSROOM INSTRUCTIONAL GENERAL AREAS

Table K.--Means and standard deviations of responses on classroom instructional general areas for both (overall) beginning and experienced production agriculture teachers

Area	Beginning Teachers		Experienced Teachers		Overall Respondents	
	Mean	S.d.	Mean	S.d.	Mean	S.d.
A. Planning for Instruction	3.07	.38	2.88	.48	2.97	.44
B. Establishing Classroom Climate	2.27	.50	1.93	.33	2.09	.45
C. Management/Execution of Instruction	2.66	.40	2.46	.35	2.56	.39
D. Selecting and Using Instructional Materials/Aids	2.69	.60	2.24	.48	2.45	.58
E. Evaluation of Students' Performance	2.61	.65	2.33	.52	2.47	.59
F. Future Farmers of America (FFA)	2.79	.34	2.46	.50	2.62	.46
G. Supervised Occupational Experience Program (SOEP)	2.78	.51	2.34	.53	2.55	.56

Higher mean indicates greater level of difficulty (problem).

APPENDIX L

CRONBACH'S RELIABILITY COEFFICIENT

CRONBACH'S RELIABILITY COEFFICIENT

$$\text{Reliability} = \frac{I}{I-1}\left(1 - \frac{\sum_{i}^{K} S_i^2}{S^2}\right)$$

$$= \frac{66}{65}\left(1 - \frac{61.528}{134.755}\right)$$

$$= 0.55, \text{ where}$$

I = number of items

S_i^2 = variance of the item

S = variance of total score of each respondent

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