

PERCEPTIONS OF JOB RESPONSIBILITIES  
AMONG SELECTED CALIFORNIA  
SECONDARY AGRICULTURAL  
EDUCATION TEACHERS

By

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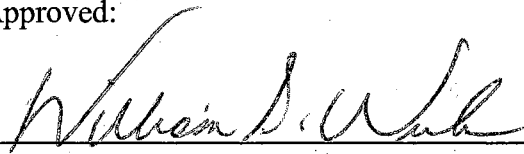
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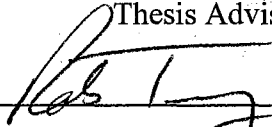
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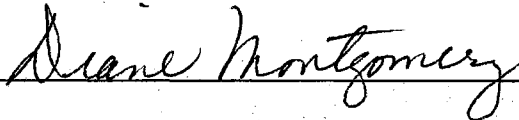
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## CHAPTER I

### INTRODUCTION

Agricultural education at the secondary level, when compared to other programs, is a unique part of the total vocational education program. Agricultural education teachers have responsibilities such as Supervised Agricultural Experience (SAE) programs and the agricultural education student organization (FFA). Added teacher responsibilities, along with the community leadership role secondary agricultural education teachers play, make agricultural education program responsibilities challenging.

Over the years, secondary agricultural education programs have been modified to meet changing school environments and societal demands. Additionally, agriculture's shift from production to processing and marketing has played a role in changing agricultural education programs. Specialty courses such as aquaculture, food science, natural resource management, and entrepreneurship have been added to the secondary agricultural education course offerings. The result has been a demand for agricultural education instructors with a wider variety of teaching skills.

During the 1980's two national reports called for major revisions to educational programs. A Nation At Risk (National Commission on Excellence in Education, 1983)

recommended that high school graduation requirements be strengthened and all students seeking a diploma be required to master foundations in the five new curriculum basics, language arts, mathematics science, social studies and computer science. The report stressed a major goal of developing the talents of all to the fullest. Attaining that goal required assisting all students to work to the limits of their capabilities. Schools needed to adopt genuinely high standards rather than allowing minimum ones.

In 1988, the National Research Council's (NRC) Committee on Agriculture in Secondary Schools issued a report promoting high standards for agricultural education. Understanding Agriculture: New Directions for Education called for "more flexibility in curriculum and program design and the requirements and activities of the FFA" (p.31). The report also recommended major revisions and updates to outdated agricultural education curriculum. Aspects of those revisions included the ability of educators to solve problems, adapt new technology, demonstrate effective leadership skills, and possess solid command of core skills. Additional aspects related to more flexibility in curriculum design, and the impact of increased program requirements on teachers.

In response to recommended educational reforms, state departments of education and local school systems implemented innovative programs such as School-to-Career, Tech Prep and Craftsmanship 2000. The National FFA Organization created additional award programs such as Computers in Agriculture, Agricultural Sales contest, and the Agriscience Student Recognition program. State FFA associations developed more specific programs adding complexity and opportunity to the range of agricultural education teacher responsibilities. The Washington FFA Association administered an Agriscience Team contest and Natural Resources skills contest to enhance program

offerings. The state of Pennsylvania Department of Education promoted aquaculture as an agricultural production option. A job interview contest was added to the career development events in California. These additional programs and activities increased educators' responsibilities, both in and out of the classroom.

Lockwood (1976) concluded that the list of teacher responsibilities grew to the point where there were more activities than time to do them. Goode and Stewart (1981) noted during the last 18 years at least eight time-consuming activities were added to the list of agricultural education teacher responsibilities in Iowa. "The growth of agricultural education program offerings are a mixed blessing; on one hand, students benefit by having more choices, and on the other hand, teachers must constantly incorporate more responsibilities while developing new skills to keep technically updated" (Ennis, 1991 p. 3).

The NRC committee (1988) concluded that some vocational agriculture teachers spent inordinate time preparing students for FFA activities. According to the NRC, these teachers tended to place little emphasis on delivering agricultural instruction in the classroom, updating curricula, or involving the business community in the vocational agriculture program. "In many vocational programs, a principal focus of class time and extracurricular activity is preparing students to compete in traditional, production-oriented FFA contests and award programs" (NRC, p. 43).

## The Profession of the Secondary Agricultural Education Teacher

As the job duties have changed over time, other professional issues have arisen as well. Crucial issues face the field of agricultural education today, such as job satisfaction, burnout rates, and retention of secondary agricultural education teachers. Agricultural education programs have consistently changed over the last decade, yet little is known about how teachers view their job responsibilities (Juergenson, 1965).

According to Scrivens, (1997) the teacher's roles and responsibilities, including entry-level requirements, should be delineated in a job description or similar document at the time of employment by the school. Professional roles and responsibilities included such areas as knowledge of subject matter; earning and maintaining current teaching credentials; reviewing and selecting curriculum materials; designing instruction and planning lessons; monitoring and assessing student learning; communicating with parents; maintaining records of student learning; fulfilling applicable laws and government regulations; and participating in professional service and staff development activities. The requirements for managing those professional skills and responsibilities within the context of the three agricultural education areas may be overwhelming, potentially leading to problems of recruitment and retention of secondary agricultural education teachers.

According to Phipps & Osborne, (1988) teachers of secondary agricultural education must possess or develop the abilities required to perform the many duties involved in conducting a successful program of agricultural education. The following are some of these abilities:

1. Ability to establish and maintain relationships.
2. Ability to determine community and individual needs.
3. Ability to develop and improve the local program of agricultural education.
4. Ability to organize and use advisory groups.
5. Ability to plan and maintain instructional facilities.
6. Ability to advise the local FFA chapter, adult association, and other school-sponsored organizations.
5. Ability to plan instruction and teach high school students and adults.
6. Ability to provide guidance, placement, and follow-up.
7. Ability to keep departmental records and make reports.
8. Ability to administer, supervise, and coordinate the activities of the local department.
9. Ability to relate agricultural education to the highest values.
10. Ability to behave as professional educators and as members of a professional group (p. 137).

The agricultural teachers' job responsibilities, as articulated by Phipps and Osborne, (1988) and the professional development requirements for teachers in general, as described by Scrivens, (1997) form the theoretical structure for job responsibilities defined as the foundation for this study.

It seems apparent that an important aspect for discovery is the perception of secondary agricultural education teachers toward their job responsibilities, especially in terms of the relationship to the secondary agricultural education program.

## Problem Statement

The National Research Council's (1988) study on agricultural education in the secondary schools reported findings that secondary agricultural education teachers were spending too much time on FFA and not enough on classroom instruction. Additionally, state education departments and local school systems implementation of more programs based on the national reports, A Nation At Risk and Understanding Agriculture have increased job responsibilities for teachers in agricultural education programs. A study was needed because little is known about how secondary agricultural education teachers perceive their job responsibilities.

## Purpose

The purpose of this research was to describe perceptions of selected California secondary agricultural education teachers in the Central and San Joaquin regions concerning their job responsibilities.

## Research Questions

1. How do selected agricultural education teachers describe their work?
2. In what predominant ways do selected agricultural education teachers perceive what their job is like and what their ideal job would be like pertaining to their job responsibilities?

## Scope of the Study

The scope of this study included selected secondary agricultural education teachers in the Central and San Joaquin California Agricultural Teachers Association (CATA) regions of California.

## Assumptions

The following assumptions were made regarding this study:

1. The Q-sort statements used aligned with selected teachers' viewpoints.
2. The subjects chose the Q-sort statements most representative of their view based on the questions asked.
3. The subjects provided honest expressions of their viewpoints.

## Definition of Terms

Agricultural education – the “scientific study of the principles and methods of teaching and learning as they pertain to agriculture” (Barrick, 1993, p. 24). In previous literature, agricultural education was referred to as vocational education in agriculture and vocational agricultural education.

Agricultural Education Program Components – activities designed to support and enhance the mission of agricultural education, such as classroom/lab instruction, FFA, SAE, and the community (Phipps & Osborne, 1988).

Agricultural education teacher – a “state certified teacher teaching agricultural classes to high school students” (Smith, 1993, p. 7).



California Agriculture Incentive Grant Program – standards were developed by the agricultural vocational education advisory committee. The standards were established in an effort to improve the quality of secondary agricultural education programs. The grant was directly tied to the monies under the Vocational Act of 1963 (California State Department of Vocational Education, 1990).

Job Responsibilities –the collection of teacher duties associated with coordinating and managing an agricultural education program (Ennis, 1991 p.5).

National FFA Organization (FFA) – “The national organization of students enrolled in agricultural education programs. FFA activities are an integral part of the instructional programs under the National Vocational Education Acts” (Knebel, 1982, p. 11).

Supervised Agricultural Experience (SAE) – “the actual, planned application of concepts and principles learned in agricultural education. Students are supervised by agriculture teachers in cooperation with parents/guardians, employers and other adults who assist them in the development and achievement of their education goals. The purpose is to help students develop skills and abilities leading toward a career” (Handbook of Supervised Agricultural Experience, 1992, p. 2). These supervised learning experiences may be provided by using facilities of the home, farm, school, or an agricultural business (Knebel, 1982). In previous literature, SAE’s were also know as SOE (Supervised Occupational Experience), SOEP (Supervised Occupational Experience Program), student projects or projects, and SAEP (Supervised Agricultural Experience Programs).

## CHAPTER II

### REVIEW OF LITERATURE

The purpose of this chapter was to present a review of relevant literature and research studies associated with the job responsibilities of secondary agricultural education teachers. Research studies, books, professional journals, and periodicals pertinent to this study were examined. The review of literature was organized into five sections: (1) Historical Overview of the Secondary Agricultural Education Program; (2) Teachers Duties/Job Responsibilities; (3) Secondary Agricultural Education Programs and/or Job Responsibilities; (4) Job Satisfaction and Dissatisfaction Among Teachers; and (5) Q Method.

#### Historical Overview of the Secondary Agricultural Education Program

According to Moore (1988) in 1734, Georgia was the first state that taught agriculture in a school setting. During remainder of the 1700s and the early 1800s, most agriculture was primarily taught in schools for orphans or in missionary schools during this time period. "During the latter part of the 1700s, agricultural societies were established in many states, the first two being in Philadelphia and South Carolina in 1785." (p. 2). The 1800's saw increased agricultural instruction in private schools. Also,

agricultural societies and organizations developed. However, during the Civil War and to the end of the century, the organizations lost impetus and agricultural instruction decreased as well.

Numerous 20<sup>th</sup> century events and individuals impacted agricultural education. The Smith-Hughes Act of 1917 was generally recognized as the cornerstone of all publicly funded vocational education, including agricultural education. The Act laid out the organizational structure for the profession that is present to date. It called for the implementation of farm practice programs, specified the purposes of agricultural education, and provided federal monies to initiate the program on a nationwide scale (Shepardson, 1929).

Rufus Stimson's contribution to the agricultural education program was the idea of the project method. "This method emphasized the necessity of basing the instruction on the student's agricultural projects" (Stimson & Lathrop, 1942 p. 22). The method became popular and widely used by secondary agricultural education teachers. As a result, the project method was incorporated into secondary agricultural education programs across the nation. The Smith-Hughes Act of 1917 contained a provision that all agricultural students were required to have a supervised farm practice, which is known today as the Supervised Agricultural Experience (SAE) (Moore, 1988).

The Future Farmers of America (FFA) student organization was established as one of the components of vocational agriculture according to Phipps and Osborne (1988). Camp and Crunkilton (1978) assert Henry Groseclose's contribution to the profession has centered on the FFA:

Groseclose, along with Harry Sanders, Walter Newman, and Edwin Magill founded the Future Farmers of Virginia in 1925 at Virginia Polytechnic Institute while they were on the faculty in agricultural education. His work served as a basis for the constitution and by-laws adopted by the FFA at its first national convention in 1928. He served as the first secretary and treasurer of the National FFA and to this day is given credit for the development of the FFA as an integral part of the total program of agricultural education (p. 61).

The federal government reinforced the value of FFA to agricultural education through a federal charter to the organization. "The granting of a federal charter (Public Law 740) in 1950 gave special status to the FFA organization. It also made legal the long standing concept that the organization was an integral part of the curriculum in agricultural education" (Camp & Crunkilton, 1978 p. 62).

The Vocational Education Act of 1963 and the Vocational Education Amendments of 1968 and 1976 strengthened and broadened the quality of vocational education. Amendments further emphasized and mandated certain aspects of vocational and technical education. The Carl D. Perkins Vocational Education Act of 1984 amended the Vocational Education Act of 1963. The Perkins Act provided federal support of vocational education for a five-year period. The 1984 act also formally linked vocational student organizations to the instructional program in an integral manner (Phipps & Osborne, 1988).

John Dewey's philosophy of education was an influence to the enactment of the Smith-Hughes Act. He emphasized that the purpose of education was to develop

informed citizens for a democratic society. Such an education prepared students in broad problem-solving skills, experimentation, and full participation in democratic processes. Dewey believed that culture should be taught through vocations, but he did not believe in teaching students to be trained in specific skills. Dewey saw education as direction of life activities; related subjects, and courses to help prepare students for change and for alternative careers (Sutherland, 1969).

From a historical perspective, the agricultural education program evolved from the efforts of numerous influential individuals, as well as significant events. Additionally, these individuals and events helped to delineate the components of the nation's secondary agricultural education programs.

#### Components/Models of a Secondary Agricultural Education Program

Phipps and Osborne (1988) stressed four integral components of a vocational agriculture program. Those components included:

1. Classroom instruction
2. SOEP (supervised occupational experience program) for students
3. Lab instruction
4. Vocational Student Organization

According to Phipps & Osborne (1988) the linkage among all curricular components should be strong, clear, planned, and purposeful. Appropriate laboratory activities should be incorporated into all content areas. The SAE component of agricultural education should build on student achievement in classroom and group

laboratory settings and suggest problem areas to be taught or retaught. Finally, FFA contests and programs provide reinforcement and incentives to members as they seek to develop clearer understandings and skill proficiency. The common theme among the components was the consistent interrelationship of agriculture and education.

Barrick (1992) also recognized four components for agricultural education, although he placed the context of the program into the school and the community. His components included: a) classroom and laboratory instruction; b) application; c) employment and/or additional education; and d) career. Classroom and laboratory instruction focused on technical agriculture, leadership, and personal development. Supervised experience, improvement activities, and FFA provided experiential learning opportunities, reinforced instruction, motivated students, and provided a means of identifying problems on which to base instruction. Incentives such as contests, degrees, and awards were not the driving force on which FFA and supervised experience activities were based, but instead served as reinforcement and motivational tools by providing recognition to students for exemplary performance (Barrick, 1992).

Birkenholz (1986) created an agricultural education model with five components: FFA; Classroom; SOE; Young Farmers, and Adults. These components were based on his interpretation of eight basic principles for vocational education: democratic participation, pragmatic orientation and values development, change through flexibility and continuity, decision making through problem solving, experience centered, individual and social needs, agriculture resource management, and interrelationships of agriculture. This model uniquely incorporated the adult aspect into secondary agricultural education programs.

## Teacher Duties/Job Responsibilities

Cardozier (1967) also emphasized the adult aspect of agricultural education programs as he discussed the duties of agricultural education teachers. He recognized the job of the agriculture teacher was a complex one and each part echoed the philosophy of what the teacher believed his/her role to be. The teacher was expected to work with students and parents in a variety of settings. Included settings were the classroom, the home farm or employment area, in-school and out-of-school groups, curricular and extracurricular activities, school and community groups, with adolescents and adults, and other contrasting factors that make his/her tasks uniquely interesting and challenging.

Juergenson (1965) stated the role of the agriculture teacher involved responsibilities related to classroom teaching, supervised occupational experience, FFA advising, extracurricular and non-agriculture teaching duties, campus faculty, community service, professional responsibilities, family, program administration, specialization in teaching, adjusting to change and agriculture as general education.

The amounts of time teachers relegate to FFA, supervised agriculture experience, community service, extracurricular and non-agriculture teaching duties, and professional responsibilities varies. Classroom teaching demands the greatest portion of an agriculture teacher's time. However, the teacher may have responsibilities for classes, when ultimately the duties encompass the whole program (Juergenson, 1965).

Phipps and Osborne (1988) said teachers of secondary agricultural education must possess or develop the abilities required to perform the many duties involved in

conducting a successful program of agricultural education. The following were some of those abilities:

1. Ability to establish and maintain relationships.
2. Ability to determine community and individual needs.
3. Ability to develop and improve the local program of agricultural education.
4. Ability to organize and use advisory groups.
5. Ability to plan and maintain instructional facilities.
6. Ability to advise the local FFA chapter, adult association, and other school-sponsored organizations.
7. Ability to plan instruction and teach high school students and adults.
8. Ability to provide guidance, placement, and follow-up.
9. Ability to keep departmental records and makes reports.
10. Ability to administer, supervises, and coordinates the activities of the local department.
11. Ability to relate agricultural education to the highest values.
12. Ability to behave as professional educators and as members of a professional group (p. 137).

The California State Department of Vocational Education (1990) in its strategic plan developed a list of general responsibilities of secondary agriculture teachers in California, which included the following:

1. To provide vocational instruction that is realistic in terms of current and future job specifications;



2. To provide related instruction with field, shop, laboratory, cooperative work, or other occupational experience that is appropriate to the vocational objectives of the student;
3. To utilize a variety of teaching methods which will promote the attainment of desirable goals by each student;
4. To arrange sufficient contact with the work community so that the vocational competency will be maintained.
5. To participate in the development of instructional materials;
6. To participate in curriculum development for the specific training assignment and for the total program of the schools;
7. To participate in studies of the needs of youth in the school community;
8. To seek the assistance of resource persons who are informed about and responsible for the instruction of students with various mental, physical, educational, and other handicaps;
9. To assist in placement of students;
10. To cooperate with local vocational counseling and guidance personnel;
11. To provide leadership development and training opportunities and recognition of students through programs sponsored by the California State Department of Education, Vocational Education Support Unit (California State Department of Vocational Education, 1990 p. 11).

This list of responsibilities provided future secondary agricultural education teachers insight into the teaching profession and helped veteran agriculture teachers clarify their existing responsibilities within the profession.

Scrivens (1997) stated when teaching positions were advertised, or even when a job description was written, only the features that distinguish it from the job of other teachers were mentioned. Most teacher's duties were not explicitly stated in the usual process of enrolling, training, and hiring teachers, but were implicit in the social context of teaching.

Scrivens (1997) revealed the following outline of teacher duties:

1. Knowledge of subject matter
  - A. In the fields of special competence
  - B. In across-the-curriculum subjects
2. Instructional competence
  - A. Communication skills
  - B. Management skills
    - i. Management of process
    - ii. Management of progress
    - iii. Management of emergencies
  - C. Course construction and improvement skills
    - i. Course planning
    - ii. Selection and creation of materials
    - iii. Use of available resources (a. Local; b. Media; c. Specialist)
    - iv. Evaluation of course, teaching, materials, and curriculum

3. Assessment competence
  - A. Knowledge about student assessment
  - B. Test construction/administration skills
  - C. Grading/ranking/scoring practices
    - i. Process
    - ii. Output
  - D. Recording and reporting students achievement
    - i. Knowledge about reporting achievements
    - ii. Reporting process (to: a. Students; b. Administrators; c. Parents; d. Others)
4. Professionalism
  - A. Professional ethics
  - B. Professional attitude
  - C. Professional development
  - D. Service to the profession
    - i. Knowledge about the profession
    - ii. Helping beginners and peers
    - iii. Work for professional organizations
    - iv. Research on teaching
  - E. Knowledge of duties
  - F. Knowledge of the school and its content
5. Other duties to the school and community (p. 165).

Furthermore, Scrivens (1997) advocated the duties lists were not obtained by simply doing what were conventionally referred to as “job analyses”. Such analyses usually were based on a time sampling of what teachers actually did, or a survey that asked what they believe they did, or what they or someone else (e.g. an administrator) thought was important among the things they did. On the other hand, the list was a normative list, a list of what teachers legitimately could be held responsible for knowing and doing, something that was not related in any simple way to what they in fact knew and did.

#### Secondary Agricultural Education Programs and/or Teacher Duties

Ennis' (1991) identified seven responsibility program categories for secondary agricultural education teachers. The responsibility areas were ranked by teachers in the study, based on their rating of importance to the program. The rankings were: 1) FFA; 2) Teaching; 3) Supervised Experience Program; 4) Program Management; 5) Professional Development; 6) Public Relations; and 7) School Related Activities.

Everett (1981) determined five management functions of the secondary agricultural education program: planning, organizing, staffing, directing, and controlling. Secondary Agricultural Education teachers indicated the most important functions of their programs were planning and staffing. Planning included development of program goals, objectives and policies, and securing support for planned programs. Staffing was important due to necessity for employing credentialed secondary agricultural education teachers to fill positions opened by retirements or increased enrollments.

Cox and Zurbrick (1986) noted ways secondary agricultural education teachers perceived the importance of activities associated with the components of vocational agriculture. Teachers ranked activities based on importance to the agricultural education program. The ranking follows:

1. Teach high school vocational agriculture classes;
2. Advise FFA chapter meetings;
3. Plan and manage the agriculture department budget;
4. Supervise the student's experience program when the student is most in need of help and/or most desirous to learn;
5. Provide instruction in agricultural mechanics as part of the vocational agriculture program;
6. Require students to maintain an SOEP;
7. Counsel students individually on career and other personal matters;
8. Supervise an FFA Banquet;
9. Classroom and shop facilities in compliance with OSHA regulations; and
10. Use the majority of summer time for supervision of students' supervised occupational experience programs.

In 1966 (Cardozier, 1967) most vocational agriculture teachers had four classes per day. Thirty years later many had five or more classes plus a homeroom, study hall, or other extra teaching duties. The typical course offerings in 1966 were Agriculture I, II, III, and IV. A generation later, programs also included forestry, natural resources

management, ornamental horticulture, floriculture, aquaculture, and agricultural mechanics and technology.

According to Eubanks, (1978) school forms and paperwork continued to multiply for agriculture teachers. Most departments had more equipment and additional laboratories to maintain and operate or they shared facilities and equipment with other vocational programs. Numerous changes in FFA also occurred over the years. For example, proficiency award areas have more than doubled and the application forms became more extensive. More contest areas were added to FFA programs at the local, district, state, and national levels. Increased student diversity required a more individualized SAE program. SAE supervision may require visiting two locations- home and job site - sometimes over 20 miles apart.

Studies have been conducted on the time demands of agricultural education instructors. Violet (1996) reported classroom instruction demanded 60 percent of an agriculture teachers' time in a fair quality program and 75 percent in a poor quality program. FFA consumed 60.5 percent of the teachers' time in an excellent quality program and 40 percent in a fair quality program. SAE required 18.8 percent of the teachers' time in a poor quality program.

Jewell (1989) reported administrators acknowledge that vocational agriculture teachers should teach only classes of vocational agriculture and should be responsible for supervised occupational experience programs. Most administrators surveyed indicated study hall or other activities should not be included as part of the vocational agriculture teacher's job. However, most administrators believed that the relative workload of

teachers of vocational agriculture, including extracurricular activities, should be the same as that of other teachers in the system.

### Job Satisfaction and Dissatisfaction Among Teachers

Lamberth (1963) investigated why vocational agriculture teachers in Tennessee continued to teach. He found the most influential factors were: (1) teaching high school farm boys; (2) working with young people and being able to guide and counsel them; (3) born and raised on a farm and wish to be closely associated with the farm; (4) FFA activities; and (5) associations with other agricultural teachers and professional men and women.

Harrison (1970) conducted a study of Oklahoma teachers who graduated from Oklahoma State University with a degree in Agricultural Education during the years 1948-51. He reported the most important reason for continuing to teach was the teaching situation. Other factors considered important were pride in the professional status, benefits of personal freedom, appreciation of public acclaim, and a desire to stay settled in a rural life situation. In 1979, White surveyed Oklahoma teachers with five or more years teaching experience. He found the factors that most influenced the teachers to remain in the profession were (1) satisfaction experienced from helping others; (2) satisfaction and pride in student accomplishment; and (3) enjoyment received from involvement with FFA activities.

Brown (1973), in a study of vocational agriculture teachers in the southeastern United States, reported the major factors influencing teachers' decisions to remain in

teaching were: (1) advantages of year-round employment; (2) feeling of accomplishment and success; (3) owning a home in the community; (4) family desires to stay settled; and (5) desired rural life situations.

In a study of Kansas vocational agriculture teachers by Reilly (1980) the factors rated highest by teachers planning to remain in the profession were revealed. The five highest ranking factors were: (1) enjoy working with rural people; (2) enjoy being close to work associated with the farm; (3) enjoy working with young people; (4) enjoy the chance to work outdoors; and (5) enjoy working with other vocational agriculture teachers.

McMillion (1978) conducted a study of teachers who had returned to teaching vocational agriculture during the years 1975, 1976, and 1977. Factors listed as being most influential in their decision to return to the profession were: (1) a desire to work with youth; (2) desire for 12 month employment; (3) chance to visit homes, etc.; (4) work hours better in teaching; and (5) less pressure in teaching.

Knight (1978) reported teachers' reasons for job dissatisfaction included: ...long hours, followed by students in class who should not be in vocational agriculture. Also, long range occupational goal was something different than teaching vocational agriculture. The fourth and fifth reasons given by teachers related to long hours. This includes insufficient salary to cover long hours and too many extracurricular activities. The sixth factor according to former teachers was in adequate administrative support and backing on decision (p. 134).



Furthermore, Knight (1978) found vocational agriculture teachers who left the profession listed some interesting reasons for their departure. The most common reason, long hours combined with inadequate salary, was a particularly descriptive combination. This may have been the limiting factor to the number of well-qualified capable young teachers who were attracted to the profession.

Knight and Bender (1978) stated teachers must begin to recognize schools were not set up solely to support vocational agriculture and teacher's personal agriculture interests. All other school programs were not simply satellites around the vocational agriculture program. Agriculture teachers needed to be more of a team player and less of a lone wolf in the school pack. Knight and Bender went on to say:

If a teacher expects administrative support for his program, he must be prepared to offer a supportable program. If he expects administrative backing for his decisions, he must first establish a track record for making sound decisions. If he expects to be trusting by the school administration he must concentrate on deserving the trust by being a productive, loyal faculty member. If that means taking on some 'extracurricular' and 'evening' activities, he must be prepared to do so without constant whining and complaining (p. 2).

For teachers to remain in the profession there must be a level of enjoyment and contentment gained from the work a person does that obscures the routine, less-than-enjoyable aspects of his or her job.

Mattox (1974) found that job satisfaction was a factor related to vocational agriculture teacher turnover. Past studies showed a positive relationship existed between

job satisfaction and performance. Korman, (1968) applying those findings to teachers, inferred that a satisfied teacher performed better, resulting in the enhancement of the teaching/learning process. Applying that inference, research efforts recognizing the importance of job satisfaction among vocational agriculture teachers were indicators of the teacher's level of performance and program success.

Knight, (1978) in a study of why vocational agriculture teachers quit teaching, revealed five factors were related to teacher turnover:

1. Long range occupational goals were other than teaching vocational agriculture,
2. There were students in class who should not have been in vocational agriculture,
3. Inadequate opportunities for advancement,
4. Long hours, and
5. Inadequate salary (p.134).

While it was important to recognize job dissatisfaction existed among agriculture teachers and dissatisfied teachers leave the profession, it was also important to note the large number of teachers who indicated they get fulfillment and satisfaction from their work. Gorczyca (1987) reported almost 70 percent of the secondary agricultural education teachers indicated satisfaction with their daily work hours and schedules. Ninety-five percent also stated that they were satisfied with their jobs.

## Q Method

Q methodology was first developed in the 1930's by William Stephenson (1953) and was described as an instrumental and philosophical approach to the study of subjectivity. Respondent's subjectivity was considered synonymous with personal viewpoint, beliefs, experience, and background. Performing a Q-sort was an evaluation for which right answers did not exist. Stimuli were placed in significant order from the standpoint of the person completing the sort. The ordering of statements by the individuals reflected differences in importance each statement had for that person. Thus, a picture of the viewpoint of each individual was revealed. The data from the subjects' statements were analyzed to yield useful statistics for the interpretation of meaning.

In Q methodology, the research variable becomes the people performing the Q-sorts, not the various Q-sort statements. Factor analysis conducted with Q methodology was considered to be appropriate in determining what people perceive related to the subject being studied. Subjects associated with a certain factor were assumed to have a common perspective, or to form clusters of persons, according to the similarity in their rank ordering of the statements or items (Stephenson, 1953).

Studies have shown the test/retest reliability of data gathered through Q methodology to be 0.80 and higher (McKeown & Thomas, 1988). It was assumed that given the same items, subjects within a study would produce additional Q-sorts that were highly correlated to their original sort. Content validity considers the theoretical applicability of the test items for their relevance to the subject being studied. Validity was not considered particularly relevant in a statistical sense in Q-sort methodology. Q-

sort, by definition, was subjective and there was no outside criterion for a person's own point of view (Brown, 1980).

Generalizations in Q-methodology were not thought of in terms of sample and universe. Samples in Q studies were not usually drawn randomly, nor were they generalized to large populations. "All that is required were enough subjects to establish the existence of a factor for purposes of comparing one factor with another" (Brown, 1980 p. 182). For this reason, Q-method typically employed small respondent numbers (McKeown & Thomas, 1988).

Recognizing the factor analytic model in Q methodology represented the sorts of people, increasing the number of persons on any factor had little impact on the results. Thus, the results were expected to be valid for other persons of the same potential type (Brown, 1980). Persons of a particular outlook would be expected to load highly on the same factor. As qualitative research, the results applied only to subjects participating in a study. However, one might conjecture that other subjects of similar age, gender, and experience held similar beliefs.

"Q method is an important and unique approach to the study of psychological, sociological, and educational phenomena" (Kerlinger, 1986, p. 598). Most research methodologies examine questions from the investigator's point of view. Based upon personal viewpoint, the investigator chooses the theory, forms the hypotheses, selects the categories and measurements, and analyzes the scores – all external from the subjects involved. Such traditional research methodology, referred to as R-methodology, requires explanations be given in terms of original concepts built into questionnaires. Since the

results of such research methods do not necessarily reflect the subject's will, his feelings remain unknown; he is uninvolved (McKeown & Thomas, 1993).

The Q technique and R-methodology differ in that Q allows the subject to speak for her or himself. Behavior was not defined and measured by the investigator's concept but by the subjects'. Because the process is self-referent, it is of particular value in situations where the individual's self is involved, where his/her opinion and viewpoint were concerned as in psychological, social and political matters. Since no outside standard or operational definitions exist by which the subject's point of view may be measured, no right or wrong exists. This operant subjectivity postulates nothing; it requires no definitions, no constructed effect: "a phenomenon is observed and a concept is attached to it" (Brown, 1980, p. 28). "The thrust of Q methodology is therefore not one of predicting what a person will say, but in getting him/her to say it in the first place [i.e., by representing it as a Q sort] in hopes that we may be able to discover something about what he mean when he says what he says" (Brown, 1980, p. 46).

The concourse comprises the raw materials for Q methodology. The flow of communicability surrounding any topic is referred to as a concourse. A concourse can be collected in a number of ways. The two most typical methods were reviewing literature and/or interviewing people and jotting down or recording what they say. A study of public opinions would necessitate interviewing representatives of those segments of the society apt to have something to say about the issue. The concourse is where the sample statements were developed to be administered in a Q sort (Brown, 1993).

The number of statements used in a Q sort may be as large as the investigator pleases with most researchers concerned with statements that put variability of meaning

among the items so that extreme positions do not dominate the sort (Stephenson, 1953). Kerlinger, (1986) wrote sorters can handle up to 90 or 100 statements and recommended between 50 and 100. The more complex the topic being investigated, the fewer statements should be used, according to Kerlinger.

In Q methodology, the research variable becomes the people performing the Q-sorts, not the various Q-sort statements. Factor analysis conducted with Q methodology was, therefore, considered appropriate to determine what people perceive related to the subject being studied. Subjects associated with a certain factor were assumed to have a common perspective, or to form clusters of subjects, according to the similarity in their rank ordering of the statements (Stephenson, 1953).

Q methodology (McKeown & Thomas, 1988) enabled respondents to communicate a point of view from an internal frame of reference. Following data analysis, the statements composing each of the Q-data factor arrays described the meaning of likeness or unlikeness to the subjects loading on that factor. An interpretation of factors extends beyond statistical analysis to theoretical criteria. This includes using interview data, previous literature, and researcher interpretations (Brown, 1980).

Studies have shown the test/retest reliability of data gathered through Q methodology to be 0.80 and higher (McKeown & Thomas, 1988). It is thus assumed that given the same items, the subjects within this study would produce additional Q-sorts that were highly correlated to their original sort. Content validity considers the theoretical applicability of the test items for their relevance to the subject being studied. Validity is not considered particularly relevant in a statistical sense in Q-sort methodology. Q-sort is

subjective by definition and there is no outside criterion for a person's own point of view (Brown, 1980).

Brown addressed the problem of generalization in terms of specimen and type: "Generalizations are expected to be valid for other persons of the same type, i.e., for those persons whose view would lead them to load highly on factor A" (Brown, 1980). He maintained that five or six persons loaded significantly on a factor were sufficient to produce reliable scores; thus, no more than forty subjects were required in a Q study (Brown, 1980).

### Terminology

Based on Stephenson, (1953) Brown, (1980) and McKeown and Thomas, (1988) the following terms were noted as they applied to Q method.

Concourse – the infinite theoretical domain of possible Q items which represents a reduction of subjective communication in a given context. A concourse, pragmatically and naturalistically obtained from collections of items from interviews, archives, or other empirically grounded source of communication, is the population from which Q-samples are drawn.

Concourse Theory of Communication – all discourse exists in subjective respects as concourses of declarative, implicitly self-referent statements; all subjectivity is transformable into operant factor structure that can be studied scientifically.

Condition of Instruction – description of a functional-interactional situation developed pursuant to the domain of subjectivity that is of theoretical interest to the

researcher and which is given to a respondent to guide the Q sort, the interpretation of which leads to an understanding of the respondent's perspective vis a vis that instruction (see also "functional-interactive situation in subjective behavior").

Confounded Loading (Sort) – simultaneous significant loading on two (or more) factors by a respondent's Q sort, indicating that the respondent shares more than one perspective with respect to that condition of instruction.

Consensus Items -- those with factor z-scores that lie within one standard deviation unit of each other, indicating that all respondents assign equal importance to the item.

Correlation Matrix -- the matrix of zero order Pearson's product-moment correlation coefficients among respondents' sorts ( $n \times n$ ); for forced distributions, the correlation between any two Q sorts  $i$  and  $j$  is calculated as  $r_{ij} = 1 - (\sum d^2 / 2Ns^2)$ , where  $d$  = the difference in an item's score in the two sorts,  $\sum d^2$  = sum of the squares of differences in all item scores in the two sorts,  $N$  = number of items in the Q sample, and  $s^2$  = variance of the Q sort distribution (based on the shape of the form board). The number of different correlation coefficients excluding the diagonal, in an  $n \times n$  matrix =  $n(n-1) / 2$ . The square of the correlation coefficient,  $r_{ij}^2$ , is known as the coefficient of determination, and represents the percentage of overlap between the two sorts,  $i$  and  $j$ , and also represents the proportion of variance between the two sorts that is explained by either one of them.

Discriminating Items -- those with factor z-scores that are greater than one standard deviation unit apart, indicating that they are judged significantly differently by different respondents under the same condition of instruction



Eigenvalue – indication of the amount of variance explained by any particular factor, calculated as the sum of the squared loadings by column (for each factor). An eigenvalue of 1.0 (Kaiser's criterion) is often used as the stopping criterion during factor extraction (for a P-set of 10 sorts, an factor with an eigenvalue of 1.0 means that the factor accounts for 10% of the total variance among the 10 sorts; for 100 sorts, a 1.0 eigenvalue factor would only explain 1% of the variance). Each respondent's own squared loading (contribution to the eigenvalue) represents that respondent's contribution toward the factor's explanatory power.

Explained Variance – percentage of total variance in the correlation matrix accounted for by each factor = the factor's eigenvalue \* 100 / the number of respondents' sorts. (The amount of variance in a factor explained by any one respondent's sort is equal to that respondent's squared loading \* 100 / the eigenvalue). There are three possible reasons for low explained variance: (1) not enough factors have been extracted; (2) the Q sample does not capture all elements of extant perspectives, i.e., the Q sample is not representative; or (3) the P-sample does not have well formed perspectives vis a' vis the condition of instruction. Explained variance is reported two ways in Quanal: initially for unrotated factors and later for the rotated factors.

Factorial Design – a multidimensional (usually two), structured, Q sample design based on systematic grouping of items by category to ensure breadth and comprehensiveness (representativeness) to facilitate theory testing. The total number of items included in a factorially-designed Q sample = categories (or dimension #1) \* subcategories (or dimension #2) \* replications of items. If the number of items included in the Q sample is equally divided among the categories, the design is "balanced;" if not,

the design is "unbalanced." It is important to recognize, however, that it is not the researcher's categorization that matters; rather, it is the respondent's sort.

Forced Distribution – arrangement of items in a Q sort in accord with a pre-specified format (usually quasi-normal); there is no significant difference in factor structure between forced and free and the "law of error" fewer issues are of great importance than are of less or no importance.

Form Board – pre-formatted board or sheet upon which Q items are placed during a forced distribution Q sort exercise

Item Score -- number indicating rank assigned to an item based on its position in the distribution following a Q sort exercise (e.g., -4 to +4)

Non-Significant Loading (Sort) – statistically insignificant loading on all factors (Q structures do not capture the respondent's perspective)

Operant Subjectivity – factors grounded in concrete behavior; the explicit expression of a respondent's perspective in a Q sort; interpretation of perspective inferred from the relative location (scores) of items in the factor arrays.

Orthogonal Factors – common factors that lie at right angles to each other in factor space and which represent independent (no correlation) perspectives.

P-Set/P-sample – the set of individuals participating in the study who are chosen also to reflect the full range of representative perspectives of theoretical interest (n). If multiple sorts by the same individual(s) are included in the study, the P-set would be expanded to include all sorts by the individual(s). Ideally, the P-set (or P-sample) would include at least five significant loaders on each orthogonal factor.

Principal Component Method – determinate method of linear factor extraction from  $n \times n$  correlation matrix that minimizes unexplained variance (represents the best fit of linear factors to correlation coefficients).

Q Factor – an operant, noncategorical, representation of a whole perspective rather than an analytically distinct trait synthesized externally by the researcher; a particular perspective shared in common by respondents who have sorted Q items in a similar way; a distinct cluster of opinion; a composite point of view.

Q Factor Analysis – extraction, rotation, interpretation, and validation of (m) common (linear) factors that portray common perspectives among the sampled population (n Q sorts); extracted from  $n \times n$  correlation matrix.

Q Factor Correlation – a measure of orthogonality/statistical independence (0 would be perfectly orthogonal); otherwise there will be some overlap between the factors (perspectives).

Q Factor Interpretation – explanation in terms of a commonly shared attitude or perspective; done by examination of Q items that characterize the factor (especially distinguishing items and those with high factor scores).

Q Factor Loading – extent of covariance (closeness of fit or relationship) between a respondent's Q sort and the factor (-1.0 to +1.0); the Pearson's correlation coefficient between a Q sort and the factor (analogous to a standardized regression coefficient in multiple linear regression or a path coefficient in causal analysis); the square root of a respondent's contribution toward the explanatory power (explained variance) of that factor.

Q-Factor Rotation – examination of Q sort correlations from different perspectives in a Q factor space of m-factor dimensions in which coordinate points represent respondents' factor loadings. Atheoretical rotation (e.g., varimax orthogonal rotation and oblimax oblique rotation) to simple structure (i.e., maximizing loads on one factor while minimizing loads on all others) is accomplished by minimizing deviations about the regression lines (linear factors). Theoretical rotation (i.e., manual or hand rotation) is used to view perspectives from particular vantage points in factor space that are of interest to the researcher.

Q Factor Score – normalized Q item score on the common factor calculated as Spearman's weighted average; a quantum of subjective importance (quantsal).

Q Factor Score Array – distribution of Q item scores that defines a factor; model of the revealed perspective or attitude.

Q Factor Structure – primary abstraction that is the basis of categories of operant thought of the ideal type variety; items, with scores, that make up (define) a factor; listing of those items and their factor scores which distinguish that factor from all others.

Q Factor Validation – verification of factor interpretation with the respondent who loads most cleanly (has the highest purity and loading) on that factor (most purely and completely reflects that perspective alone).

Q Item – an object (often a statement of opinion) that is included in a Q sample and is arranged in a particular order during a Q sort exercise; such items are usually taken from the environment that includes the behavior that is the subject of the study (known as the concourse).

Q Item Score – the relative position that an item occupies in the common factor score array (e.g., from -5 to +5 in an eleven pile distribution).

Q Methodology – the modus operandi for a science of subjectivity; the condition of viewing things exclusively through the medium of one's own mind; the body of theory and principles that guide the application of technique, method, and explanation of Q theory; a method of subjective inquiry that is contextual (functional-interactional) and revealed by impression; a method of scientific study of subjectivity that is based on self-referent abductive discovery and understanding rather than deductive explanation, prediction, verification, or diagnosis.

Q Sample – collection of Q items drawn from a concourse of items and used in a Q sort (N); preferably obtained "naturalistically" i.e., from respondent's own statements, but can also be drawn from other sources such as archives or the researcher, or can be a hybrid of naturalistic and non-naturalistic sources. It is assumed that each item in a concourse has equal probability of finding expression in a communication and possesses equal a priori potential. As long as the items are chosen to be broadly representative (random selection is unnecessary), the operant factors that emerge will not vary in structure.

Q Sort – arrangement of Q items into a significant order according to the extent to which each item is consistent with a respondent's point of view or perspective (e.g., by preference (from most like to most dislike), by attitude (most agree or approve to most disagree or disapprove), or by personality (most like me to most unlike me). This sort represents (captures; makes operant) the respondent's conceptual model of his or her perspective (subjectivity) with respect to a particular condition of instruction. [Note: the

ipsative nature of Q sorting is not a problem since it is only the shape, not the elevation or scatter of the Q sort, that matters in interpretation of operant factors].

Q Technique – procedures of Q methodology including developing the Q sample, administering Q sorts, computing interperson Q sort correlations, and analyzing (extracting, rotating, interpreting, and validating) Q factors.

Q Theory – subjectivity can be studied scientifically and operantly; the goal of Q studies is to understand subjectivity (not to explain or predict it) and is based on the theory of communication (not the theory of information).

R Methodology – a method of objective inquiry that is premised on isolated, axiomatic, reliability testing of researcher-defined and operationalized traits; concerned with systematic hypothetico-deductive testing of observations against prevailing theoretical predictions.

Reliability, Factor ( $r_{ij}$ ) – composite reliability; sum of the intraperson reliabilities divided by  $(1 + [(n-1) - \text{the mean interperson reliability}])$ .

Reliability, Intraperson ( $r_{ij}$ ) – autocorrelation; consistency among successive sorts of the same Q sample under the same condition of instruction (routinely found to exceed 0.8); calculated as  $r_{ij} = h^2 + sp^2 = \text{sum of a respondent's perspective held in common with other respondents (commonality) and his unique, idiosyncratic perspective (specificity)}$ .

Significant Correlation – a correlation between two sorts of sufficient magnitude that the researcher has confidence that the relationship is not by accident; an  $r_{ij} > Z_{\alpha/2} * SE_r$  is significant at the specified level of significance and the researcher can be  $1 - \alpha(100)\%$  confident in this result.

Significant Loading – a factor loading that cannot be explained by random assignment. The standard error of a zero order correlation coefficient matrix is calculated as the square root of the number of items used in the sort [ $SE_r = 1/\sqrt{N}$ ]. The critical value of the loading (minimum significant loading) is calculated as the two-tailed z-score corresponding to a specified level of significance ( $\alpha$ ) multiplied by the standard error ( $SE_r$ ) of the loading estimate [ $z_{\alpha/2} * SE_r$ ]. The z score applicable to any specified level of significance is obtained from statistical z-tables. [At  $\alpha = .001$ ,  $z_{\alpha/2} = 3.090$ ; at  $\alpha = .01$ ,  $z_{\alpha/2} = 2.576$ ; at  $\alpha = .05$ ,  $z_{\alpha/2} = 1.960$ ]. Thus, if the number of statements = 49, at .001 level of significance, the critical value =  $(1/7)*3.09 = .441$ . Higher levels of significance are preferred to overcome any doubts of significance due to violations of statistical independence and to forced-choice sorting of items (though shape is preserved, elevation and scatter in the distribution are lost during correlation and factor analyses).

Standard Error of Pearson's Correlation Coefficient ( $SE_r$ ) – the standard error of the distribution of values of  $r_{ij}$  in a sample of  $r_{ij}$ 's (correlation matrix) is equal to one standard deviation in that distribution. The general formula for computing the standard deviation of a distribution of  $r_{ij}$  is  $(\sigma = 1 - r_{ij}^2 / \sqrt{N})$ , where N is the number of items in a Q sample. Since this is a zero order distribution, i.e.,  $\sum r_{ij} = 0$  and mean  $r_{ij} = 0$ , then  $r_{ij}^2 = 0$ ; thus the formula reduces to  $\sigma_r = SE_r = 1/\sqrt{N}$ .

Structured Q Sort – items are designed by the researcher and included in a Q sample in order to test one or more hypotheses of a structured theory (explanation of the relations among the variables of the phenomenon under study).

Subjective – a communicable possibility relating to the inner world, which involves experiences of the mind (meaning and possibilities of self-involvement) expressed as articulations in a person's behavioral field. As such, they are not reducible and subject to prediction; rather, they have excess meaning subject to expansive understanding in terms of higher level structures, configurations and synthesis. Subjective communicable possibilities include opinions, feelings, beliefs, desires, emotions, attitudes, fantasies, values, and preferences, but do not include statements of fact.

Subjectivity – a person's self-referent point of view, perspective, or conceptual model of reality, composed of self (personal reference) and non-self (other reference) developed through reflection of self as an object in the outside world.

Theory of Communication – understanding is gained by study of verbal and nonverbal communications, with a focus on meanings (phenomenon) rather than facts; the basis of Q methodology.

Theory of Information – understanding is gained by study of the transmission of information with a focus on facts (noumena) rather than meanings; the basis of R methodology.

Unstructured Q Sort – items are obtained naturalistically and included in a Q sample to ensure representativeness, but no attempt is made to differentiate item construction or inclusion to test a priori hypotheses; most effectively used in exploratory (heuristic) research (theory building).

Varimax Rotation – atheoretical orthogonal factor rotation designed to maximize the variance of squared loadings (explained variance) on each factor



Wrap – weighted rotational analytic procedure; a collection of software subroutines used to calculate factor-specific item z-scores, Q factor correlations, and factor score arrays, as well as produce lists of discriminating and consensus items.

Strengths:

Kerlinger (1986) gave four convenient analytic advantages of Q methodology:

1. The scales of individuals are easily correlated and analyzed.
2. Composite rank orders of groups on individuals are easily correlated.
3. Scale values of a set of stimuli can be calculated using one of the rank-order methods of scaling.
4. It partially escapes response set and the tendency of the respondent to agree with socially desirable items (p.32).

Kerlinger pointed out that ranks were ipsative measures. In other words, they were systematically affected by other measures and were referred for interpretation to the same mean. Because of the nature of Q methodology, each respondent's set of measures had the same mean and standard deviation. Thus, no matter who ranked the items, the sum and mean of the ranks were always the same. It also follows that standard deviation between items is always the same (Kerlinger, 1986). Q methodology uses an ipsative technique of sorting a representative set of subjective statements drawn from a concourse of possible feelings or reactions about a subjective condition (Brown, 1993).

### Weaknesses:

Kerlinger (1986) also related two major weaknesses of Q-methodology:

1. A method not well-suited for large sample purposes.
2. Focused on a forced choice procedure.

### Summary

This chapter provided background information concerning the historical aspect of agricultural education, agricultural education program job responsibilities and teacher duties, and teacher job satisfaction or lack thereof. Also included was an overview of Q-method.

Since the creation of agricultural education programs in 1917, state and federal legislation allowed secondary agriculture education programs to expand beyond the original objective of providing education about farming to young men. However, with those program expansions have come increased program requirements, and also led to greater opportunities for program diversity.

With diversity came added responsibilities and increased training demands on agricultural education instructors. In addition to classroom teaching duties, agricultural educators were expected to maintain an active student organization, create and maintain relationships with community leaders, promote and supervise entrepreneurial and career activities for students, all while maintaining the integrity of the overall program.

Additionally, teachers were expected to participate in professional development, school

and community activities not relating to agriculture, and nurture and maintain a personal life.

Stress from additional duty assignments and the pressures of being an agricultural education professional have led to job frustration among teachers. As with most other professions, concerns about long work hours, inadequate salary, additional duties and job burnout have led to discussions about overall job satisfaction within the agricultural education profession. Research studies have shown positive relationships existed between job satisfaction and performance.

Q-method research allows a researcher to use the subjects own perspectives in better understanding the nature of their behavior. Other methods of data gathering utilized instruments created by the researcher(s) from the researcher(s) perspective. Q-method instruments, on the other hand, were based on the perspectives of the research subjects. A major focus of Q-method was why and how people believe what they do.

## CHAPTER III

### DESIGN AND METHODOLOGY

The purpose of this study is to describe how secondary agricultural education teachers in California perceive their job responsibilities using Q method. A combination of theoretical structure (Phipps & Osborne, 1988; Scrivens, 1997) was used to determine participants' opinions about their job responsibilities. This chapter includes participants' descriptions, the process used to develop the Q-sort, the research procedures, and the process for data analysis.

#### Institutional Review Board (IRB)

Federal regulations and Oklahoma State University policy require review and approval of all research studies that involve human subjects before investigators begin their research. The Oklahoma State University Office of University Research Services, through the Institutional Review Board, (IRB) conducts this review to protect the rights and welfare of human subjects involved in biomedical and behavioral research. In compliance with the aforementioned policy, this study received proper review and was granted permission to proceed. The Institutional Review Board assigned the numbers AG-97-026 and AG-99-001 for the study (Appendix A).

## Participants

The P-set/P sample consisted of twenty-three secondary agricultural education teachers were invited by the researcher to represent two regional areas in California. The P-set/P sample is the set of individuals participating in the study who are chosen also to reflect the full range of representative perspectives of theoretical interest (Brown, 1980). California was chosen for this study because it was convenient for the researcher. Thirteen participants represented the Central region and ten participants represented the San Joaquin region. Of the six California regions, the Central and San Joaquin regions were selected because of their total agricultural education teacher populations. The other regions had smaller overall numbers of teachers, fewer overall programs, and fewer multiple teacher departments. Individual teachers were purposively selected for diversity based on gender, age, years of teaching experience and agriculture department size.

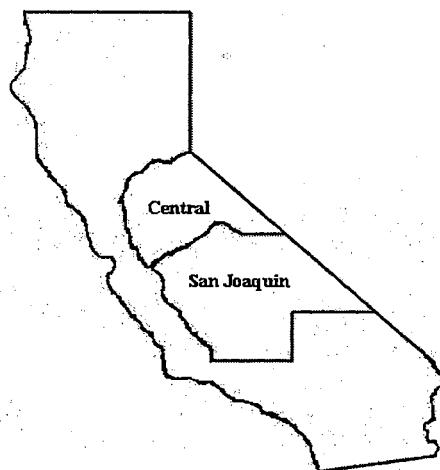


Figure 1. Geographic location of Central and San Joaquin Regions of California Agriculture Teachers Association (CATA).

From the California state agricultural education directory in each region, diversity in terms of gender, age, years of teaching experience, and agriculture department size was considered for each invitation. Upon selection, the researcher contacted each subject by telephone to request participation in the study. Appointments were scheduled with teachers agreeing to participate. All 23 invitations were accepted. Before taking part in the research, each respondent completed a consent form (Appendix B). The individuals were informed of the study's purpose and assured confidentiality, anonymity and the right to withdraw at any time.

### Instrumentation

Q method is well suited to studying perceptions of secondary agricultural education teachers' job duties and responsibilities. This study used Q methodology to measure teachers' point of view regarding their job responsibilities. A Q sort was designed using a triarchic theoretical structure constructed by combining the philosophical models of Phipps and Osborne (1988) and Scrivens (1997). Twenty California and Oklahoma secondary agricultural education teachers were interviewed. Each individual was asked to list their duties as a classroom/lab teacher, FFA advisor, SAE supervisor and any other job duties. Those statements were used to develop the Q sort. However, none of the twenty subjects interviewed participated in the actual Q sort process.

The population of potential statements regarding the topic of interest was called a concourse in Q methodology (Brown, 1980). Because the concourse was drawn from

several sources and in-depth interviews, it was considered a hybrid, utilizing a naturalistic and theoretical framework (McKeown & Thomas, 1988). The theory depicted was a combination of Scriven's (1997) teacher's professional responsibility descriptions, and Phipps and Osborne's (1988) description of agricultural education teacher's job responsibilities. Using interview data from secondary agricultural education teachers and the literature descriptions, a theoretical structure was determined to represent secondary agricultural education teachers' duties. The areas of triarchic structure were 1) classroom/lab instruction, 2) SAE & FFA, and 3) administrative/professionalism.

A total of 156 statements were pooled together from the interviews and the literature review. The researcher categorized the statements into the three areas based on the theoretical structure. A panel of three secondary agricultural education teachers reviewed the 156 statements for the following criteria: (1) representation of the construct; (2) non-redundant statements; (3) full range of opinions or ideas represented in the construct; and (4) use of language familiar among agricultural education teachers. Content analysis of all statements produced twelve statements for each category in classroom/lab instruction, FFA/SAE, and administration/professionalism. The Q-sort statements were then placed on cards (Table I).

A panel of secondary agricultural education teachers and agricultural education teacher educator faculty members pilot tested the Q-sort. As a result of the pilot study, modifications were made to enhance clarity and simplify statements to improve the instrument's readability, as shown in Table I. Statements 1 through 12 refer to classroom/lab instruction, statements 13 through 24 refer to FFA/SAE, and statements 25 through 36 refer to professionalism/administration.

Table I

Q-sort Statements

#	Q-sort Statement
1.	Develop unique educational opportunities for special population students.
2.	Develop good working relationships with other teachers, staff, and administrators.
3.	Infuse employability skills/workplace applications throughout the curriculum.
4.	Utilize curriculum, materials, and resources that are culturally sensitive and free from gender bias.
5.	Create and manage an attractive and functional learning environment.
6.	Incorporate a variety of teaching methods into instruction.
7.	Integrate more computer/technology based materials into the curriculum.
8.	Identify each student's learning style and individualize instruction accordingly.
9.	Collaborate with other academic and vocational teachers.
10.	Connect classroom lesson plans with work-site learning & on-the-job experiences.
11.	Assist students to use available resources in solving problems, decision-making and critical thinking.
12.	Utilize quality student assessment strategies.
13.	Plan and assist with the chapter FFA program of activities.
14.	Coach a variety of Career Development Event teams (judging teams).
15.	Direct all FFA community service projects and activities.
16.	Supervise all student SAE projects.
17.	Participate in FFA activities at sectional, regional, and state levels.
18.	Coordinate annual FFA chapter banquet.
19.	Assist students with their recordbooks.
20.	Infuse school-to-work concepts into student organization activities.
21.	Assist students with their projects at livestock show.



22. Direct livestock selection for students' projects.
  23. Encourage students to participate in FFA activities.
  24. Showcase student achievements.
  25. Expand recruitment strategies to reach all student populations.
  26. Modify programs to meet local job opportunities.
  27. Conduct follow-up studies to track former students.
  28. Maintain effective advisory committee meetings throughout the year.
  29. Attend school board meetings on a regular basis.
  30. Search for grants and funding for program enhancement.
  31. Continue formal education and other professional development opportunities.
  32. Complete self-assessment processes and plan for modification.
  33. Participate periodically in business and industry experiences.
  34. Provide leadership in professional organizations.
  35. Write articles for professional publications.
  36. Network at every possible opportunity about the program.
- 

Once the statements were placed on cards they are to be sorted according to the Q-sort Form Board, as shown in Figure 2. The form board was constructed with a range of nine columns with frequencies of 2 – 4 – 4 – 5 – 6 – 5 – 4 – 4 – 2. According to Brown (1993) “Both the range and the distribution shape are arbitrary and have no effect on the subsequent statistical analysis, and can therefore be altered for the convenience of the Q sorter...” (p. 103)

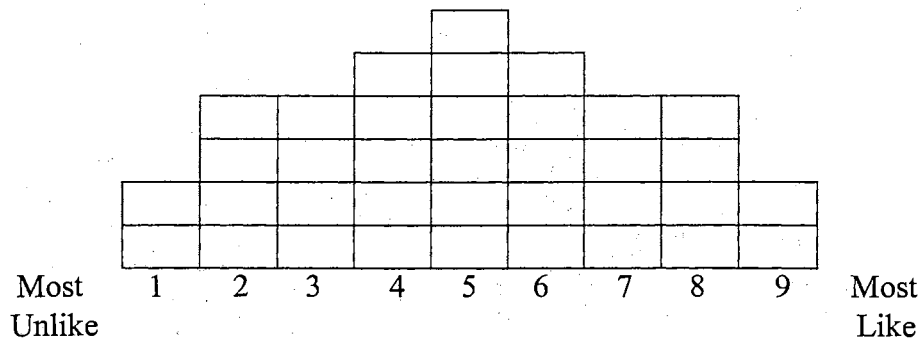


Figure 2. Q-sort Form Board

### Procedures

The researcher administered the Q-sort to individual teachers during August and September 1998. After consent forms were secured, the researcher proceeded with an oral presentation (Appendix D). Q-sort form boards, Q-sort statement cards, and conditions of instruction/record sheets (Appendix E) were distributed to each subject. Each subject was instructed to complete the six demographic questions on the conditions of record sheet before proceeding to the next part. The subjects were instructed to sort the statements based on two conditions of instruction: 1) "What is your job like?" and, (2) "What would you want your ideal job to be like?"

Teachers began by forming a three pile general sort for the first condition of instruction. Subjects placed statements most like their jobs in a pile on the right. Statements most unlike their job were placed in a pile on the left. Statements that fell in between or had no particular meaning to the subject were placed in a center pile.



Figure 3. Q-Sorting Process

When this process was completed, subjects moved the statements from the three piles onto the Q-sort Form Board with the following directions:

1. From the pile on the right find the 2 statements that are most like you and place them on the Q-sort form board in column 9.
2. From the pile on the left find the 2 statements that are most unlike you and place them on the Q-sort form board in column 1.
3. From the pile on the right find the 4 statements that are most like you and place them on the Q-sort form board in column 8.

4. From the pile on the left find the 4 statements that are most unlike you and place them on the Q-sort form board in column 2. You may have to use your center pile Q-sort statement cards.
5. From the pile on the right find the 4 statements that are most like you and place them on the Q-sort form board in column 7. You may have to use your center pile Q-sort statement cards.
6. From the pile on the left find the 4 statements that are most unlike you and place them on the Q-sort form board in column 3. You may have to use your center pile Q-sort statement cards.
7. From the pile on the right find the 5 statements that are most like you and place them on the Q-sort form board in column 6. You may have to use your center pile Q-sort statement cards.
8. From the pile on the left find the 5 statements that are most unlike you and place them on the Q-sort form board in column 4. You may have to use your center pile Q-sort statement cards.
9. Place the last 6 Q-sort statement cards in column 5 on the Q-sort form board.

Once teachers placed each statement on the Q-sort Form Board, the statement numbers were recorded onto the condition of instruction/record sheet (Appendix F). Subjects were instructed to clear the boards in preparation for the second condition of instruction – “What would you want your ideal job to be like?” Instructions were repeated as for the first condition of instruction.

After the second condition of instruction was completed, the subjects recorded their answers for the post Q-sort summary question on their condition of instruction/record sheet. Upon completion of answering the post Q-sort summary question, the researcher also collected field notes during the interview (Appendix F). Initially, a cassette tape recorder was used to collect responses, however its use inhibited teacher response, so it was discarded. Instead, the researcher recorded handwritten field notes, with quotations to directly relate to the factor interpretation.

### Data Analysis

Data analysis involved the sequential application of three sets of statistical procedures including correlation, factor analysis, and computation of factor scores. This was followed by interpretation of the factors.

“Correlation coefficients are employed to determine the extent to which statement patterns in two Q-sorts are similar” (Brown, 1980, p. 267). It is believed that teachers who rank-order items in approximately the same manner have similar attitudes towards the topic in question. Using PQ Method 2.0 (Atkinson, 1992), correlation coefficients were utilized to determine the extent to which rank order patterns in Q-sorts were similar. Each sort was compared to all other sorts. Pearson correlation coefficients provided this measure of association. Higher positive correlations indicated similar Q-sorts. Higher negative correlations indicated an inverse relationship between Q-sorts. The Q-sorts in this study were correlated producing a 46x46-correlation matrix (Appendix G). The

correlation matrix was used to extract factors in which teachers grouped themselves as like-minded.

The factoring routine chosen from the PQMethod 2.0 software package (Atkinson, 1992) was a principal component factor analysis. The principal component method was the solution that maximized variance of each succeeding factor. PQMethod 2.0 calculated eigenvalues for each subject. The program extracted eight factors that had eigenvalues greater than 1.00. The varimax method was used to rotate the factors to achieve orthogonal solutions analyzing a three, four, and five factor solution. It enabled procurement of a simple vantage point from which to describe the data. A three-factor solution was chosen and calculated with z scores forming a single array of scores for each factor. The z-score was used to determine the arrangement of statements on each factor array. Factor arrays were used to interpret factor scores, and consensus items between and among factors, and to describe the interview data from the participants.

## CHAPTER IV

### FINDINGS

The purpose of this study was to describe how secondary agricultural education teachers in California perceive their job responsibilities. This chapter describes the findings of the study. After a description of the demographic information, the results of the analysis of Q data are provided. The data are presented and the factors interpreted according to the two research questions of the study. The research questions were:

1. How do selected California secondary agricultural education teachers describe their work?
2. In what predominant ways do selected California secondary agricultural education teachers perceive what their job is like and what their ideal job would be like pertaining to their job responsibilities?

#### Characteristics of Participants

Characteristics of selected California secondary agricultural education teachers included gender, age, years of teaching experience, type of teacher education program, region, and teacher department size. A summary of the demographic breakdown was provided in Table II. The study included thirteen secondary agricultural education

teachers from the Central region and ten from the San Joaquin region. There were eleven males and twelve females participating in the research. There were five males and eight females from the Central region and six males and four females from the San Joaquin region.

Table II

Demographics of Selected Central and San Joaquin Region California Secondary Agricultural Education Teachers

Group	Central	San Joaquin	Total
Gender:			
Female	8	4	12
Male	5	6	11
Age Range	28 – 50	27 – 54	27 – 54
Years of Teaching Experience Range	3 – 28	2 – 32	2 – 32
Teacher Department Size			
One	2	0	2
Two	6	3	9
Three	1	3	4
Four	4	0	4
Five	0	3	3
Six	0	1	1

The subjects' ages ranged from 27 to 54, with a mean of 39.3 and a standard deviation of 8.8. There was greater variability in the reported teaching experience. The subjects had taught between 2 and 32 years with a mean of 13.5 years and a standard deviation of 9.4.



The average department size was three, with departments ranging in size from one to six. Twenty-two participants identified apprenticeship (student teaching) as their type of teacher education program and one female from the San Joaquin region had taken the National Teachers' Examination (NTE) for alternative certification. Subjects' teacher department sizes included: two in a one person department, nine in a two person department, four in a three person department, four in a four person department, three in a five person department, and one in a six person department. Demographic data were analyzed using descriptive statistics. All findings were reported in the aggregate with no individuals being identified singly.

## Data Analysis

### Correlation

Using PQ Method 2.0 software (Atkinson, 1992), correlation coefficients were utilized to determine the extent to which rank order patterns in Q-sorts were similar. Each sort was compared to all other sorts. Pearson correlation coefficients provided this measure of association. Higher positive correlations indicated similar Q-sorts. Higher negative correlations indicated an inverse relationship between Q-sorts. The Q-sorts in this study were correlated producing a 46x46-correlation matrix (Appendix G).

### Factor Analysis

Factor analysis imparts statistical clarity to the behavioral order shown in the correlation matrix. Factors indicated persons who rank-ordered the statements in the sort

in essentially the same fashion (Brown, 1980). The subjects grouped themselves through the process of Q-sorting.

Studies have shown the test/retest reliability of data gathered through Q methodology to be 0.80 and higher (McKeown & Thomas, 1988). It was assumed that given the same items, the subjects within this study would produce additional Q-sorts that were highly correlated to their original sort. Average reliability for all three factors was 0.80. Standard error of factor scores were 0.117 for the first, 0.137 for the second, and 0.174 for the third, respectively. Composite reliability for Factors 1, 2, and 3 were 0.986, 0.981, and, 0.970, respectively. Validity was not considered relevant in a statistical sense in Q-sort methodology. Q-sort is subjective by definition and there was no outside criterion for a person's own point of view (Brown, 1980).

The principal components factor analysis was used to obtain the factor solution. Eight factors with eigenvalues greater than 1.00 were extracted by the default of the software program. For each eigenvalue, the percentage of total variance for each factor was computed. Varimax rotation was used to examine preferred solutions, and the eight-factor solution was rejected in favor of a more prudent factor solution by examining the three-, four-, and five-factor solution. Using inspection criteria, the three-factor solution was chosen, as it best met the criteria (Appendix H).

Inspection criteria used were: accounting for the most number of sorts, rejecting factors with fewer or no significant loading, accounting for divergent outlying perspectives, and relating to theory (Brown, 1980). Brown (1980) maintained that five or six individuals loading significantly on a factor were sufficient to produce reliable scores. Ford (1986) suggested a commonly used rule specifying only variable loadings of 0.40 or

higher on a factor should be considered. The level of significance for this study was 0.46. The three-factor solution produced eighteen subjects loading on Factor 1, thirteen loading on Factor 2, and eight loading on Factor 3.

Each subject was identified with a letter of the alphabet and proceeding each letter was a one or a two. The one represented the Q-sort based on the first condition of instruction, "What is your job like?" and the two represents the second condition of instruction, "What would your ideal job be like?" The subsequent number codes indicated the respondent's age, years of teaching experience number of teachers employed (including themselves) in the agriculture department. Subjects A through M were from the Central region and subjects N through W were from the San Joaquin region.

Five Q-sorts were non-significant and two Q-sorts were confounded or split-load. A non-significant load referred to the statistically insignificant loading on all factors; Q structures did not capture the respondent's perspective. Confounded or split load was the simultaneous significant loading on two (or more) factors by a respondent's Q-sort, indicating that the respondent shared more than one perspective with respect to that condition of instruction.

The four- and five-factor solution revealed a decreased number of subjects loading on each factor, in some cases less than five Q-sorts loaded on a factor. The four-factor solution showed three confounded Q-sorts and five non-significant Q-sort loads. The five-factor solution revealed three confounded Q-sorts and four non-significant Q-sort loads. Other solutions were possible and considered, but the three-factor solution best met the inspection criteria.

The three-factor solution yielded low correlations between factors. Correlation coefficients for factors 1 and 2 and 1 and 3 were 0.26 and 0.34 respectively, For factors 2 and 3 the correlation coefficient was 0.10. Low correlation coefficients indicate little or no relationship between the factors. The eigenvalues and percent of the total explained variance accounted for by each factor were shown at the bottom of the table located in Appendix H. Factor 1 accounted for 25% of the explained variance, factor 2 accounted for 14%, and factor 3 accounted for 11%. Altogether, this solution accounted for 50% of the total explained variance.

### Factor Scores

A model Q-sort or theoretical factor array, one for each factor, was generated. Each model followed the same pattern as the original Q-sort distribution. Factor scores were converted to z-scores (Appendix I). The converted scores were used to determine the arrangement of statements on each factor array. For example, the Q-sort statement in the +4 position on Factor 1 was the Q-sort statement with the highest positive z-score. The item in the -4 position on Factor 1 was the Q-sort statement listed with the highest negative z-score (Brown, 1980).

Teachers who arranged their Q-sorts in ways that were statistically significant to the model (Appendix G) loaded on that factor. The Q-sort statement(s) distinguishing each factor from others are shown in Figures 3, 4, and 5 and in Appendix H. Items had to be three piles apart to be considered distinguishing.

## Findings Related to the First Research Question

The first research question was to explain how secondary agricultural education teachers describe their work. The response was determined by interpreting the three factor arrays. Each of the three factors was interpreted to represent the participant's beliefs.

### Factor Interpretation

The three factors revealed three distinct viewpoints; however, the Q-sort statement that shared consensus among all three factors was: 23) Encourage students to participate in FFA activities (array position, 4, 3, 2, for factors 1, 2, 3; z-score = 1.92, 1.06, 1.04, for factors 1, 2, 3). Although teachers viewed FFA differently in each of the three factors, they believed encouraging FFA activities was an essential component of their job. FFA appeared to be the area for accomplishing much of the secondary agricultural education teachers' work.

Factor 1 (Table III & Figure 4) focused on Q-sort statements mainly related to SAE and FFA activities and was identified as intracurricular-orientation view of job. These teachers held the belief that group curriculum and success was important. In addition, they believed that individual student instruction and professional development tasks were not as important.

Table III

Intracurricular-orientation: Array Position and Z-scores

No.	Q-sort Statement	Array Position	Z-Scores
23.	Encourage students to participate in FFA activities.	4	1.917
17.	Participate in FFA activities at sectional, regional, and state levels.	4	1.564
16.	Supervise all student SAE projects.	3	1.542
19.	Assist students with their recordbooks.	3	1.466
13.	Plan and assist with the chapter FFA program of activities.	3	1.374
18.	Coordinate annual FFA chapter banquet.	3	1.220
6.	Incorporate a variety of teaching methods into instruction.	2	1.182
22.	Direct livestock selection for students' projects.	2	.900
14.	Coach a variety of Career Development Event teams (Judging teams).	2	.882
21.	Assist students with their projects at livestock show.	2	.864
11.	Assist students to use available resources in solving problems, decision-making and critical thinking.	1	.751
30.	Search for grants and funding for program enhancement.	1	.663
2.	Develop good working relationships with other teachers, staff and administrators.	1	.594
15.	Direct all FFA community service projects and activities.	1	.198
5.	Create and manage an attractive and functional learning environment.	1	.124
31.	Continue formal education and other professional development opportunities.	0	.061
3.	Infuse employability skills/workplace applications throughout the curriculum.	0	-.001
34.	Provide leadership in professional organizations.	0	-.060
25.	Expand recruitment strategies to reach all student populations.	0	-.307
12.	Utilize quality student assessment strategies.	0	-.320
28.	Maintain effective advisory committee meetings throughout the year.	0	-.515
36.	Network at every possible opportunity about the program.	-1	-.538

8.	Identify each student's learning style and individualize instruction accordingly.	-1	-.561
26.	Modify programs to meet local job opportunities.	-1	-.637
20.	Infuse school-to-work concepts into student organization activities.	-1	-.642
9.	Collaborate with other academic and vocational teachers.	-1	-.677
33.	Participate periodically in business and industry experiences.	-2	-.685
4.	Utilize curriculum, materials, and resources that are culturally sensitive and free gender bias.	-2	-.712
10.	Connect classroom lesson plans with work-site learning & on-the-job experiences.	-2	-.857
32.	Complete self-assessment processes and plan for modifications.	-2	-.898
1.	Develop unique educational opportunities for special population students.	-3	-.927
7.	Integrate more computer/technology-based materials into the curriculum.	-3	-1.033
27.	Conduct follow-up studies to track former students.	-3	-1.114
29.	Attend school board meetings on a regular basis.	-4	-1.413
24.	Showcase student achievements.	-4	-1.662
35.	Write articles for professional publications.	-4	-1.744

Factor 2 (Table IV & Figure 5) was labeled academic-centered view of job because most items dealt with student learning and classroom instruction. These teachers believed that their instructional delivery methods were important as well as, encouraging students to participate in FFA activities. They tended to view less importance on student livestock projects.

Table IV

Academic-centered: Array Position and Z-scores

No.	Q-sort Statement	Array Position	Z-Scores
6.	Incorporate a variety of teaching methods into instruction.	4	1.904
8.	Identify each student's learning style and individualize instruction accordingly.	4	1.452
17.	Participate in FFA activities at sectional, regional, and state levels.	3	1.393
30.	Search for grants and funding for program enhancement.	3	1.259
31.	Continue formal education and other professional development opportunities.	3	1.082
23.	Encourage students to participate in FFA activities.	3	1.062
3.	Infuse employability skills/workplace applications throughout the curriculum.	2	1.058
11.	Assist students to use available resources in solving problems, decision-making, and critical thinking.	2	1.050
24.	Showcase student achievements.	2	.648
5.	Create and manage an attractive and functional learning environment.	2	.620
36.	Network at every possible opportunity about the program.	1	.566
2.	Develop good working relationships with other teachers, staff, and administrators.	1	.561
14.	Coach a variety of Career Development Event teams (judging teams).	1	.413
1.	Develop unique educational opportunities for special population students.	1	.343
26.	Modify programs to meet local job opportunities.	1	.271
9.	Collaborate with other academic and vocational teachers.	0	.231
25.	Expand recruitment strategies to reach all student populations.	0	.199
19.	Assist students with their recordbooks.	0	.185
13.	Plan and assist with the chapter FFA program of activities.	0	.113
7.	Integrate more computer/technology-based materials into the curriculum.	0	.043



10.	Connect classroom lesson plans with work-site learning & on-the-job experiences.	0	.006
20.	Infuse school-to-work concepts into student organization activities.	-1	-.234
34.	Provide leadership in professional organizations.	-1	-.359
33.	Participate periodically in business and industry experiences.	-1	-.406
28.	Maintain effective advisory committee meetings throughout the year.	-1	-.521
15.	Direct all FFA community service projects and activities.	-1	-.629
16.	Supervise all student SAE projects.	-2	-.651
12.	Utilize quality student assessment strategies.	-2	-.682
18.	Coordinate annual FFA chapter banquet.	-2	-.698
32.	Complete self-assessment processes and plan for modifications.	-2	-.929
35.	Write articles for professional publications.	-3	-.932
4.	Utilize curriculum, materials, and resources that are culturally sensitive and free from gender bias.	-3	-.967
27.	Conduct follow-up studies to track former students.	-3	-1.490
21.	Assist students with their projects at livestock shows.	-3	-1.766
29.	Attend school board meetings on a regular basis.	-4	-1.871
22.	Direct livestock selection for students' projects.	-4	-2.320

Factor 3 (Table V & Figure 6) was named vocational-based as the items included relationships with business and industry, and meeting community needs. Teachers' concerns focused on the community service aspect of the program. They related instruction to work experiences and real life situations. They viewed leadership roles and professional growth within their job as less important.

Table V

Vocational-based: Array Position and Z-scores

No.	Q-sort Statement	Array Position	Z-Scores
10.	Connect classroom lesson plans with work-site learning & on-the-job experiences.	4	1.876
21.	Assist students with their projects at livestock show.	4	1.609
1.	Develop good working relationships with other teachers, staff, and administrators.	3	1.452
26.	Modify programs to meet local job opportunities.	3	1.396
19.	Assist students with their recordbooks.	3	1.176
33.	Participate periodically in business and industry experiences.	3	1.172
23.	Encourage students to participate in FFA activities.	2	1.044
16.	Supervise all student SAE projects.	2	.988
13.	Plan and assist with the chapter FFA program of activities.	2	.784
6.	Incorporate a variety of teaching methods into instruction.	2	.680
11.	Assist students to use available resources in solving problems, decision-making, and critical thinking.	1	.461
2.	Infuse employability skills/workplace applications throughout the curriculum.	1	.385
20.	Infuse school-to-work concepts into student organization activities.	1	.262
32.	Complete self-assessment processes and plan for modifications.	1	.186
12.	Utilize quality student assessment strategies.	1	.168
7.	Integrate more computer/technology-based materials into the curriculum.	0	.098
28.	Maintain effective advisory committee meetings throughout the year.	0	.096
27.	Conduct follow-up studies to track former students.	0	.075
17.	Participate in FFA activities at sectional, regional, and state levels.	0	.067
9.	Collaborate with other academic and vocational teachers.	0	.066
22.	Direct livestock selection for students' projects.	0	-.190
1.	Develop unique educational opportunities for special		

student populations.	-1	-249
30. Search for grants and funding for program enhancement.	-1	-.333
24. Showcase student achievements.	-1	-.383
25. Expand recruitment strategies to reach all student populations.	-1	-.438
8. Identify each student's learning style and individualize instruction accordingly.	-1	-.530
31. Continue formal education and other professional development opportunities.	-2	-.565
15. Direct all FFA community service projects and activities.	-2	-.611
18. Coordinate annual FFA chapter banquet.	-2	-.684
5. Create and manage an attractive and functional learning environment.	-2	-.871
4. Utilize curriculum, materials, and resources that are culturally sensitive and free from gender bias.	-3	-.875
29. Attend school board meetings on a regular basis.	-3	-1.123
14. Coach a variety of Career Development Event teams (judging teams).	-3	-1.421
36. Network at every possible opportunity about the program.	-3	-1.599
34. Provide leadership in professional organizations.	-4	-1.659
35. <u>Write articles for professional publications.</u>	-4	-2.511

The viewpoints were supported by the ranking of Q-sort statements based on the array position and z-score of each statement provided in parentheses. The three viewpoints will be further described below and supported by data based on statistical findings, field notes and answers to the post Q-sort summary question (Appendix F).

#### Intracurricular-orientation

Teachers who viewed their job as an intracurricular-orientation believed job responsibilities focused on involvement with FFA chapter activities and including

building an interest in students to become more active in the FFA. The view dealt with responsibilities directly related to intracurricular components of the secondary agricultural education program. They also believed involvement with students' SAE projects was more important than a focus on an individual student. Furthermore, they believed that they seemed less interested in academic and theoretical concerns. Also, the items distinguishing intracurricular-oriented respondents, as noted in Figure 3, indicated the position of the Q-sort statements was different from the position of those statements on any of the other theoretical factor arrays.

				31						
			36	3	11					
	1	33	8	34	30	6	16			
	7	4	26	25	2	22	19			
24	27	10	20	12	15	14	13	23		
35	29	32	9	28	5	21	18	17		
Most Unlike	(-4)	(-3)	(-2)	(-1)	(0)	(+1)	(+2)	(+3)	(+4)	Most Like

Figure 4. Intracurricular-orientation Q-sort Grid

This viewpoint was supported by the ranking of the positive Q-sort statements (Table III) based on the array position and z-score of statements for intracurricular-oriented factor in Table III. The teachers with the intracurricular-oriented view of their job were identified by the following most like statements: 23) Encourage students to participate in FFA activities (array position 4; z-score =1.917), 17) Participate in FFA activities at sectional, regional, and state levels (4; 1.564), and 16) Supervise all student SAE projects (3; 1.542).

Additional evidence to support this idea was based on the following negative statements (Table III) included: 29) Attending school board meetings on a regular basis (-4; -1.413), 24) Showcasing student achievements (-4; -1.662), and 35) Writing articles for professional publications (-4; -1.744). The negative statements provided the evidence that teachers viewed other professional tasks and individual student achievement as less important. Therefore, more of their time was spent on group curriculum and activities in the FFA/SAE areas of the program.

Two of the teachers with high intracurricular-oriented Q-sorts loadings, in their interviews and in their answers to the post Q-sort summary question (Appendix F) indicated the importance they placed on students. One male teacher, age 47 with 23 years of teaching experience stated, "I want students to be successful with their projects and within the FFA chapter." The 48-year-old female with 19 years of teaching experience stated, "I love to teach students-whether it is in the classroom, assisting with projects (SAE) or FFA functions."

### Academic-centered

The items distinguishing academic-centered, as noted in Figure 4, indicated the position of the Q-sort statements was quite different from the position of the statements on any of the other theoretical factor arrays. This factor clustered around statements dealing with responsibilities related to classroom instruction, student learning styles, and student achievement. These teachers tended to be less involved with the handling of student livestock projects.

				9						
			20	25	36					
	35	16	34	19	2	3	17			
	4	12	33	13	14	11	30			
29	27	18	28	7	1	24	31	6		
22	21	32	15	10	24	5	23	8		
Most Unlike	(-4)	(-3)	(-2)	(-1)	(0)	(+1)	(+2)	(+3)	(+4)	Most Like

Figure 5. Academic-centered Q-sort Grid

The ranking of positive Q-sort statements based on the array position and z-score of statements for academic-centered in Table IV can support this viewpoint. The teachers with the academic-centered view of their job were identified by the following most like statements: 6) Incorporate a variety of teaching methods into instruction (4; 1.904), 8) Identify each student's learning style and individualize instruction accordingly (4; 1.452), and 17) Participate in FFA activities at sectional, regional, and state levels (3; 1.393).

This idea can also be supported by the following negative statements: 21) Assist students with their projects at livestock shows (-3; -1.766); 29) Attend school board meetings on a regular basis (-4; -1.871); and 22) Direct livestock selection for students' projects (-4; -2.320).

Evidence to further support this viewpoint was included in the following discriminating Q-sort statements between the intracurricular-oriented and the academic-centered. The statements included: 22) Direct livestock selection for students' projects, 21) Assist students with their projects at livestock shows, 16) Supervise all student SAE projects, 18) Coordinate annual FFA chapter banquet, 19) Assist students with their recordbooks, and 13) Plan and assist with the chapter FFA program of activities.

In comparing the intracurricular-oriented to the academic-centered (Figure 4), the intracurricular-oriented viewed his/her job to emphasize the FFA/SAE aspect and the academic-centered viewed his/her job as involving the individual student focusing on a classroom instruction setting.

Based on their Q-sorts, they believed any statement regarding FFA and SAE was most unlike them. Evidence to these ideas was stated in answers to the post Q-sort summary question and their interviews (Appendix F). A 50 year old male teacher with 28 years of teaching experience revealed, "I have found that it is not worth my energy to get students involved with FFA activities or projects, I just do the bare minimum for the ag incentive grant criteria. Otherwise, teaching in the classroom is my main concern". A young female teacher indicated, "...preparing for an FFA livestock field day contest and reviewing reasons — the kids like it, but I don't. There are other more important things to teach."

A male teacher, age 54 with many years of teaching experience stated, "...not enough time to do what's important - teach! The day to day requirements of the basic program and state requirements don't allow for time to do extra things or spend time needed for more one-on-one instruction with students." A 35 year old female stated, "I prefer to be a classroom teachers and down-scale the FFA/SAE stuff. . ." These teachers' comments would indicate a pattern. Teachers choose to be more academic in classroom instruction.

Vocational-based

The items that distinguished Factor 3, as noted in Figure 5, indicated the position of the Q-sort statements was quite different from the position of the statements on any of the other theoretical factor arrays. This factor clustered around statements dealing with responsibilities related to community activities, involvement with local businesses and industries, work place skills, and learning experiences. These teachers tended to place less emphasis in FFA and SAE activities. They seemed to focus less on academics. In addition, they are more concerned with student achievement and students' career goals.

				7						
			1	28	11					
	4	31	30	27	3	23	2			
	29	15	24	17	20	16	26			
34	14	18	25	9	32	13	19	10		
35	36	5	8	22	12	6	33	21		
Most Unlike	(-4)	(-3)	(-2)	(-1)	(0)	(+1)	(+2)	(+3)	(+4)	Most Like

Figure 5. Vocational-based Q-sort Grid

The positive ranking of Q-sort statements based on the array position and z-score of statements for vocational-based in Table V supported this viewpoint. The teachers with the vocational-based view of their job were identified by the following most like statements: 10) Connect classroom lesson plans with work-site learning & on-the-job experiences (4; 1.876), 21) Assist students with their projects at livestock show (4; 1.609), and 1) Develop good working relationships with other teachers, staff and administrators (3; 1.452).



Other evidence of this idea can be found in the following negative statements:

36) Network at every possible opportunity about the program (-3; -1.599); 34) Provide leadership in professional organizations (-4; -1.659); and 35) Write articles for professional publications (-4; -2.511).

In addition, six Q-sort statements supported this viewpoint. The statements revealed discriminating Q-sorts between intracurricular-orientation (factor 1) and vocational-based (factor 3): 14). Coach a variety of Career Development Events (judging teams), 18). Coordinate annual FFA chapter banquet, 34). Provide leadership in professional organizations, 17). Participate in FFA activities at sectional, regional, and state levels, 22). Direct livestock selection for students' projects, and 36). Network at every possible opportunity about the program. Teachers tended to view FFA and SAE and leadership roles differently.

Furthermore, academic-centered (factor 2) teachers differed from vocational-based (factor 3) on the following statements: 36). Network at every possible opportunity about the program, 8). Identify each student's learning style and individualize instruction accordingly, 14). Coach a variety of Career Development Event teams (judging teams); and 31). Continue formal education and other professional development opportunities. Vocational-based teachers seemed to incorporate more professional growth development events and recognize individual student learning.

Additional evidence to support this viewpoint would include the following data collected from teachers' responses to the post Q-sort summary question and their interview comments (Appendix F). A 47-year-old male teacher with 24 years of teaching experience stated, "Responsibility is important – we need to be responsible to be

successful in producing students for tomorrow's workforce." A 45-year-old male teacher indicated, "One of my main concerns is to provide students with good values and skills that meet society needs." A male teacher, age 29, said, "I am preparing them for college or the workforce..." A 30-year-old female teacher indicated, "The vocational aspect of the program is the backbone." A 41-year-old female teacher noted the importance of "...teaching skills that prepare students for the working world and being a productive member in society." A 54-year-old male indicated, "My teaching focuses on job skills because that is what can benefit students for life."

### Findings Related to the Second Research Question

The second research question was to explain the predominant ways secondary agricultural education teachers perceived their job and what their ideal job would be like pertaining to their job responsibilities. The response was determined by a comparison of the teachers' view of their actual job responsibilities with those job responsibilities viewed as the ideal.

#### Actual and Ideal Job

Twelve teachers had significant Q-sort loadings on the intracurricular-oriented view pertaining to their actual job. The group included three males and eight females. The males had at least 10 and no more than 23 years of teaching experience. They ranged from 34 to 47 years of age and all taught in a two-teacher department. The females were from 29 to 48 years old and had 3 to 19 years of teaching experience. One female

was from a one-teacher department, four females from a two-teacher department, two females from a three-teacher department, and two females from a four-teacher department.

Six teachers had significant Q-sort loadings on the intracurricular-oriented view pertaining to their ideal job. Four were males, ranging in age from 32 to 52 years, with 8 to 27 years of teaching experience. One was from a two-teacher department, two from three-teacher departments, and one from a five-teacher department. One female was 48 years old with 19 years of teaching experience and was from a one-teacher department. The other female was 28 years old with 3 years of teaching experience from a two-teacher department.

A 47-year-old male and a 48-year-old female both viewed their actual and ideal job the same for the intracurricular-oriented view of job. In response to answering the post Q-sort question (Appendix F), he stated that “I want students to be successful with their projects and within the FFA chapter.” She indicated, “I love to teach students – whether it is in the classroom, assisting with projects or FFA functions.” Both viewed their actual and ideal job focused on the FFA and SAE components of the agricultural education program. They seemed content within their profession.

Table VI

Actual and Ideal

A = Actual job      I = Ideal job

Participant	Intracurricular Oriented	Academic Centered	Vocational Based	Notes
1	A	I		
2	A I			
3	A	I		
4	A		I	
5	A I			
6		A I		
7			A I	
8			A I	
9			A	I = non sign.
10	A I*		I*	*Split - load
11	A I			
12	A		I	
13		A I		
14		A I		
15	A I*		I*	*Split-load
16	A			I = non sign.
17		A I		
18			I	A = non sign.
19	I	A		
20	I			A = non sign.
21	A I			
22	A			I = non sign.
23		A I		

One 28 year old female teacher's Q-sort loaded on the intracurricular-orientation view of job based on their actual job and split loaded on the academic-centered and the vocational-based view of job as their ideal job. In the interview, she indicated, "I think my fellow co-worker is the reason I work so much. He believes that 80 hours a week is normal (40 hours teaching and 40 hours on FFA functions & student projects). I think he is from the old school where all agriculture teachers worked so much that family didn't exist."

Four females in their 30's and one male in his 50's had Q-sorts that loaded on the intracurricular-orientation view of job for their actual job and viewed the academic-centered for their ideal job. Each indicated in their answers to the post Q-sort summary question and in the interviews (Appendix F), they lacked time to be effective classroom teachers or they viewed themselves as a poor classroom teacher because of the demands from FFA and SAE activities.

One female stated in her answer, "I just don't feel that the FFA/projects (SAE) should rule the ag program, but in reality they do and we as ag teachers abide by the demand of the program, but the priorities of the program are the FFA activities and student projects." Another female indicated, "I would love to have the time to be a better classroom teacher." Another female stated, "As an ag teacher and the FFA advisor, my time is sometimes taken up more by my duties as the FFA advisor and I don't have the time I'd like to put toward my teaching."

The one male stated a goal "... to be more effective in the classroom." Another female stated, "I feel I don't spend enough time in the classroom but I spend plenty of time on FFA and student project priorities." This viewpoint indicated some females ranging in age from 30 to 37 and one 53-year-old male viewed their actual job as intracurricular-orientation and view their ideal job to be academic-centered. There seemed to be a degree of job satisfaction among those individuals. Their responses indicated they would like to spend less time on FFA and SAE tasks and focus more of their efforts toward classroom instruction.

One 30-year-old female and one 41 year old female had Q-sorts loading on the intracurricular-orientation view for their actual job but on the vocational-based for their

ideal job. Both indicated in interviews that utilizing their time for the job responsibilities was an important issue. The 30-year-old stated, "I enjoy some of the FFA activities and others are a waste of time. That time can be utilized somewhere else in the program".

The other 41-year-old female indicated, "Normally, there is just not enough time in the day to attend to every task/duty/job that needs my attention. For example, managing the time to visit student projects, coaching my FFA teams, attending FFA contests, and preparing for a livestock show, all in one week."

Of the 12 teachers with Q-sorts loading on intracurricular-orientation for their actual job, nine were female and three were male. Age and years of teaching experience varied among the group. Most teachers worked in a two- or three-person department. Four males and two females teacher's Q-sorts loaded on the intracurricular-oriented for their actual job. Age, teaching experience, and department size all varied among the group.

Teachers with significant Q-sort loadings on academic-centered pertaining to their view of their actual job would include three males with at least nine and no more than 32 years of teaching experience. They ranged from 32 to 54 years of age and came from two-, three- and five-teacher agriculture departments. Three were female, ranging from 27 to 43 years old with 2 to 15 years teaching experience. Each was from a two-, five- or six-teacher department.

Teachers with significant Q-sort loadings on academic-centered pertaining to their view of their ideal job included five females with at least two and no more than 28 years of teaching experience. They ranged in age from 27 to 35 years; three came from a two-teacher agriculture department, one from a three-teacher department and one from a five-

teacher department. The remaining two males, ranged from 50 to 53 years old with 26 to 28 years teaching experience. Both were from two-teacher departments.

Two teachers' Q-sorts loaded on academic-centered, viewed their job responsibilities as the same for actual and ideal. Based on their Q-sorts, they believed any statement regarding FFA and SAE was most unlike them. Interview comments included the following. A 50 year old male revealed, "I have found that it is not worth my energy to get students involved with FFA activities or projects, I just do the bare minimum for the ag incentive grant criteria. Otherwise, teaching in the classroom is my main concern". A 27 year old female indicated, "...preparing for an FFA livestock field day contest and reviewing reasons — the kids like it, but I don't. There are other more important things to teach."

One 32 year old male's Q-sort loaded on academic-centered for the actual job and on the intracurricular-orientation for his ideal job. During the interview, he stated, "It has taken me five years to adjust this job to my liking. I would rather teach because that is what I get paid to do."

A 54-year-old male's Q-sort loaded on academic-centered for his actual job and on vocational-based for his view of his ideal job. He stated, "...not enough time to do what's important - teach! The day to day requirements of the basic program and state requirements don't allow for time to do extra things or spend time needed for more one-on-one instruction with students."

Three teachers had significant Q-sort loadings indicating they viewed their actual job to be vocational-based. The group included three males with at least four and no

more than 24 years of teaching experience. They ranged from 29 to 47 years of age. One was from a single-teacher department while two were from four-teacher departments.

Five teachers that had significant Q-sort loadings viewed their ideal job to be vocational-based. Three were male, ranging in age from 45 to 54 years, with 22 to 32 years teaching experience. They represented a one, four, and five-teacher department. One female was 30 years old with 6 years teaching experience from a four-teacher department. The other female was 41 years old with 6 years teaching experience from a four-teacher department.

Both male teachers, age 45 and 47 years old, viewed their actual and ideal jobs to be vocational-based. It was apparent that both teachers viewed their job to include aspects of providing service and meeting the needs of the community. In addition, to providing students with job skills to enhance their career goals.

The 47-year-old male stated, "Responsibility is important – we need to be responsible to be successful in producing students for tomorrows workforce." The other 45-year-old male indicated, "One of my main concerns is to provide students with good values and skills that meet society needs."

Answers to the post Q-sort summary question and interviews provide support to the following viewpoint. A 54 year old male said, "I am preparing them for college or the workforce..." Subject D indicated, "The vocational aspect of the program is the backbone." Subject K noted the importance of "...teaching skills that prepare students for the working world and being a productive member in society." Subject Q indicated, "My teaching focuses on job skills because that is what can benefit students for life."



## Summary

Three predominant beliefs emerged from the secondary agricultural education teachers when describing perceptions of their work. The three beliefs interpreted as intracurricular-oriented, academic-centered, and community-based represented the literature. Based on the theoretical structure (Phipps & Osborne, 1988 and Scrivens, 1997), the three beliefs reflected the theory. Intracurricular-oriented beliefs focused the secondary agricultural education components of Phipps & Osborne in the areas of SAE programs and the vocational student organization (FFA) for students. Academic-centered beliefs encompassed the Phipps & Osborne area of classroom/lab instruction and the Scrivens areas of subject matter knowledge, instructional competence, and assessment knowledge. Finally, the community/vocational-based beliefs aligned with Phipps & Osborne's classroom/lab instruction and Scriven's professionalism and other duties to the school and community.

Based on the post Q-sort summary questions and interviews, secondary agricultural education teachers have changed their perspective from the focus of the FFA to other aspects of the program. Teachers in this study were concerned about being better classroom teachers and being involved with business, industry and community needs. They believed their actual job was intracurricular-orientation (SAE/FFA) but they revealed that their ideal job was more academic-centered and they strove to be better classroom teachers. Some teachers stated they lacked time to be effective classroom teachers or they viewed themselves as poor classroom teachers because of the demands from FFA and SAE activities.

Disagreement among all three of the teachers' beliefs included the following of Q-sort statements: 21) Assist students with their livestock projects at livestock shows; 22) Direct livestock selection for students' projects; 10) Connect classroom lesson plans with work-site learning & on-the-job training experiences; 14) Coach a variety of Career Development Events (judging teams); 24) Showcase student achievements; 8) Identify each student's learning style and individualize instruction accordingly; 16) Supervise all student SAE projects; 18) Coordinate annual FFA chapter banquet; 36) Network at every possible opportunity about the program; and 26) Modify programs to meet local job opportunities. Lastly, all teachers had consensus among all three beliefs which focused on utilizing multi-cultural and free from gender bias curriculum, writing articles for professional publications, conducting follow-up studies to track former students and attending school board meetings. Teachers viewed these responsibilities as of no importance to their job.

## CHAPTER V

### CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS

#### Introduction

The purpose of this chapter is to present a concise summary of the following topics: statement of the problem; purpose of the study; research questions; scope of the study; and major findings of the research. Through a detailed summary of these topics, conclusions, and recommendations are presented based on the analysis of the data.

#### Purpose

The purpose of this study was to describe perceptions of selected California secondary agricultural education teachers in the Central and San Joaquin regions concerning their job responsibilities.

#### Research Questions

1. How do secondary agricultural education teachers describe their work?
2. In what predominant ways do secondary agricultural education teachers perceive what their job is like and what would their ideal job be like pertaining to their job responsibilities?

## Scope of the Study

The scope of this study included selected secondary agricultural education teachers in the Central and San Joaquin California Agricultural Teachers Association (CATA) regions of California.

## Summary of Findings

The findings of this study indicated that secondary agricultural education teachers hold varying perceptions of what is important regarding their job responsibilities and how they perceive what their actual job is like and what their ideal job would be like.

Opinions at issue for teachers varied on items associated with classroom/lab instruction, FFA & SAE activities, and professional/administrative duties. Three theoretical factor arrays were generated and each illustrated a teacher belief.

Phipps and Osborne (1988) and Scrivens (1997) described job responsibilities defined as the theoretical foundation for this study. Q method was used to determine respondents' opinions about their job responsibilities. The triarchic structure represented three areas of a secondary agricultural education program, which include: classroom/lab instruction, SAE & FFA, and administrative/professionalism. The results of the findings yielded three profiles: intracurricular-orientation, academic-centered, and vocational-based.

The secondary agricultural education teachers agreed their job responsibilities existed in the three beliefs. They shared the statement of encouraging all students to

participate in FFA activities within the triarchic structure, but held a different viewpoint about the realm of their profession.

### Intracurricular-orientation

Most teachers believed their actual job focused on intracurricular-orientation, but viewed their ideal job to be academic-centered. Some female teachers viewed their actual job as an intracurricular-orientation. They had between three and six years of teaching experience and ranged in age from 28 to 41 years. Some male teachers viewed both their actual job and their ideal job to be the same and typically were employed in multiple teacher departments.

Other teachers felt that the FFA and SAE activities were overly demanding of their time and consumed a majority of classroom instruction time. Most were concerned about being or becoming better classroom teachers.

An unanticipated outcome was that some teachers believed the FFA and SAE components of the program were based on meeting the criteria for the California Agriculture Incentive Grant. They needed to meet the criteria, which allotted money to the program. Teachers viewed the incentive grant money drove the program and believed they had no choice in determining how much time should be spent on FFA and SAE activities. Furthermore, some teachers believed the measure of success, as viewed by their peers, was the number of FFA/SAE competitive events their students were involved in and/or won. Those reactions indicated teachers felt the need to compete in many FFA activities and SAE, but they would prefer to have their own choice.

### Academic-centered

Most female San Joaquin region teachers viewed their real job to be academic-centered and most female Central region teacher viewed their ideal job to be academic-centered. Most female teachers in the study were under 40 years of age. This indicated that there are philosophical differences between female teachers in the Central and San Joaquin regions. Overall, most of the female agriculture teachers viewed their real and ideal jobs to be more academically focused with less emphasis in the SAE and FFA components of the program. They believed academics to be more important to students than the intracurricular activities.

The teachers tended to put emphasis and concern on being a better classroom teacher. They seemed to strive for a balanced program incorporating FFA and SAE experiences to enhance classroom instruction, rather than the intracurricular activities dominating the program.

### Vocational-based

Typically, male teachers from multiple teacher departments in the Central region having more than 20 years of teaching experience viewed their real job to be vocational-based. Male teachers in the San Joaquin region with 27 to 32 years of teaching experience and employed in multiple teacher departments viewed their ideal job to be vocational-based. This indicated that older male teachers perceived the focus of the program to incorporate community service, meet local business needs and provide students with job skills. Teachers felt that being involved in the community was

important, but there has been less emphasis on community service activities, which older teachers felt was an important aspect of their job.

### Actual and Ideal Job

Thirteen out of thirty-two teachers revealed that they view their actual and ideal job to be intracurricular-orientation, academic-centered or vocational-based. Of the thirteen, two young female teachers viewed their actual job as intracurricular-orientation and were undecided between academic-centered and vocational-based for their ideal job. This could be a strong indicator of job satisfaction among most agricultural education teachers.

Most secondary agricultural education teachers viewed intracurricular-orientation for their actual and ideal job to be the same. A majority of female teachers from two-teacher departments viewed their actual job as intracurricular-orientation. Two male teachers viewed their ideal jobs to be intracurricular-orientation with one viewing his actual job to be academic-centered and the other not holding a view of his actual job in any of the three beliefs.

Five secondary agricultural education teachers viewed their actual and ideal jobs to be academic-centered. Four of the five were females and one was a male. Two younger females viewed their actual job to be intracurricular-orientation and ideal job to be academic-centered and/or vocational-based. This would indicate that these women are either philosophically undecided about their view of their job responsibilities within the three beliefs or hold a view of job frustration.

Most male secondary agricultural education teachers with many years of teaching experience viewed their actual and ideal jobs to be vocational-based. Only one 29 year old male viewed his actual job to be vocational-based and did not hold a viewpoint for his ideal job that reflected the three beliefs. One older male and two younger females from multiple teacher departments viewed their ideal job to be vocational-based.

### Conclusions

Interpretation of the study's major findings prompted conclusions concerning the beliefs of agricultural education teachers regarding their job responsibilities. The researcher warns against generalizing these conclusions beyond the scope of the study.

1. Secondary agricultural education teachers described their jobs to be in the following areas: intracurricular-orientation, academic-centered, and vocational-based.
2. Secondary agricultural education teachers believed that all three belief systems placed emphasis on FFA.
3. Secondary agricultural education teachers held a certain level of job satisfaction.
4. Secondary agricultural education female teachers tended to view their actual job to be intracurricular and their ideal job to be academic-centered.
5. Teachers had no opinion regarding job duties pertaining to recruiting to reach students, integrating more computer/technology into the curriculum, utilizing student assessment strategies, and maintaining advisory committee meetings throughout the year.



6. Secondary agricultural education teachers showed little concern about job responsibilities in three areas: utilization of multi-cultural and gender bias curriculum, and professional growth activities.

### Recommendations

Based on the conclusions, the following recommendations were made.

1. This study was limited to two regions within the state of California. Replication of the study in other states is needed to provide additional insights.
2. Subsequent studies should gather administrator perceptions of secondary agricultural education teachers' job responsibilities through the use of a modified Q-sort. This would provide a dialogue for change between secondary agricultural education teachers and their administrators.
3. This study could be modified using other research methodology to describe differences in ways male and female secondary agricultural education teachers perceive their actual and ideal jobs.
4. Student perceptions of important components of the secondary agricultural education, in regards to program areas could also be gained using this or a slightly modified instrument. Addressing student perceptions and student needs is important in planning program changes and improvements.

## Implications for Theory

Secondary agricultural education program models and/or components, such as, Phipps & Osborne's, Birkenholtz's, and Barrick's need to be revisited. Teachers agreed their job responsibilities existed in three belief areas: intracurricular-orientation, academic-centered, and vocational-based. Most teachers in this study expressed the ideal job as being academic-centered, although the current paradigm may not necessarily stress that viewpoint.

## Implications for Practice

Agricultural education teacher educators should review current program models in undergraduate preparation courses to ensure the teacher duties and responsibilities being taught are reflective of the three belief areas. Better preparation during pre-service teacher education will lead to higher satisfaction rates among agricultural education professionals. It is critical for pre-service teachers to gain an understanding of what will be expected of them as a secondary agricultural education teacher.

Teachers in the field would benefit from professional development opportunities in all job responsibility areas. Teachers could also benefit from understanding the three categorizations: intracurricular-orientation, academic-centered, and vocational-based. Discussions among agricultural education teachers, university agricultural educators, school administrators, and state department of education leaders must focus on the role of secondary agricultural education into the 21<sup>st</sup> century. As program needs change, it is only logical that teacher duties and responsibilities will continue to change as well.

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## APPENDIXES

**APPENDIX A**  
**INSTITUTIONAL REVIEW BOARD**



OKLAHOMA STATE UNIVERSITY  
INSTITUTIONAL REVIEW BOARD  
HUMAN SUBJECTS REVIEW

Date: January 21, 1998

IRB #: AG-98-026

**Proposal Title: PERCEPTIONS OF JOB RESPONSIBILITIES OF SECONDARY AGRICULTURAL  
EDUCATION TEACHERS IN OKLAHOMA**

**Principal Investigator(s): William Weeks, Jennifer A. Delnero**

**Reviewed and Processed as: Exempt**

**Approval Status Recommended by Reviewer(s): Approved**

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT  
NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE  
APPROVAL PERIOD.

APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR  
PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE  
SUBMITTED FOR BOARD APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

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**Comments, Modifications/Conditions for Approval or Disapproval are as follows:**

Principal Investigator(s): William Weeks, Jennifer A. Delnero

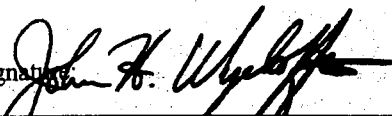
Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT  
NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE  
APPROVAL PERIOD.

APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR  
PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE  
SUBMITTED FOR BOARD APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Signature:   
Chair of Institutional Review Board  
Cc: Jennifer A. Delnero

Date: January 22, 1998

OKLAHOMA STATE UNIVERSITY  
INSTITUTIONAL REVIEW BOARD  
HUMAN SUBJECTS REVIEW

Date: 07-31-98

IRB #: AG-99-001

**Proposal Title: PERCEPTIONS OF JOB RESPONSIBILITIES AMONG SELECTED CALIFORNIA  
SECONDARY AGRICULTURAL EDUCATION TEACHERS**

**Principal Investigator(s):** William Weeks, Jennifer A. Delnero

**Reviewed and Processed as:** Exempt

**Approval Status Recommended by Reviewer(s):** Approved


ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT  
NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE  
APPROVAL PERIOD.

APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR  
PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE  
SUBMITTED FOR BOARD APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

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**Comments, Modifications/Conditions for Approval or Disapproval are as follows:**

Signature: 

Date: July 31, 1998

Interim Chair of Institutional Review Board  
and Vice President for Research  
cc: Jennifer A. Delnero

**APPENDIX B**  
**CONSENT FORM**

# ***CONSENT FORM***

August 5, 1998

Dear Secondary Agricultural Education Teacher:

As a secondary agricultural education teacher in California, this form is for your consent to participate in my study at Oklahoma State University.

You will not be asked for your name on any of your responses. Your part in the study will be anonymous and confidential. You may also quit at any time. If you have any questions concerning this study, you may contact Jennifer Delnero at 1085 Mono Hwy, Sonora, CA 95370, Dr. William Weeks can be contacted at the above address, or Gay Clarkson, the Oklahoma State University Institutional Review Board Executive Secretary at 305 Whitehurst, Stillwater, OK 74078.

Thanks for taking the time to participate in this study.

Sincerely,

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Jennifer Delnero  
Graduate Student

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Dr. William Weeks  
Professor

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I agree to participate in this study.

Date: \_\_\_\_\_

Secondary Agricultural Science Teacher: \_\_\_\_\_  
Signature

**APPENDIX C**  
**CATEGORY STRUCTURE**

## Category Structure for Q-sort

### **Classroom & Lab Instruction:**

1. Develop unique educational opportunities for special population students.
2. Develop good working relationships with other teachers, staff, and administrators.
3. Infuse employability skills/workplace applications throughout all the curriculum.
4. Utilize curriculum, materials, and resources that are culturally sensitive and free from gender bias.
5. Create and manage an attractive and functional learning environment.
6. Incorporate a variety of teaching methods into instruction.
7. Integrate more computer/technology based materials into the curriculum.
8. Identify each student's learning style and individualize instruction accordingly.
9. Collaborate with other academic and vocational teachers.
10. Connect classroom lesson plans with work-site learning & on-the-job experiences.
11. Assist students to use available resources in solving problems, decision-making and critical thinking.
12. Utilize quality student assessment strategies.

### **FFA/SAE:**

1. Plan and assist with the chapter FFA program of activities.
2. Coach a variety of Career Development Event teams (judging teams).
3. Direct all FFA community service projects and activities.
4. Supervise all student SAE projects.
5. Participate in FFA activities at sectional, regional, and state levels.
6. Coordinate annual FFA chapter banquet.
7. Assist students with their recordbooks.
8. Infuse school-to-work concepts into student organization activities.
9. Assist students with their projects at livestock show.
10. Direct livestock selection for students' projects.
11. Encourage students to participate in FFA activities.
12. Showcase student achievements.

**Professionalism/Administrative:**

4. Expand recruitment strategies to reach all student populations.
5. Modify programs to meet local job opportunities.
6. Conduct follow-up studies to track former students.
7. Maintain effective advisory committee meetings throughout the year.
8. Attend school board meetings on a regular basis.
9. Search for grants and funding for program enhancement.
10. Continue formal education and other professional development opportunities.
11. Complete self-assessment processes and plan for modification.
12. Participate periodically in business and industry experiences.
13. Provide leadership in professional organizations.
14. Write articles for professional publications.
15. Network at every possible opportunity about the program.

**APPENDIX D**  
**SCRIPT FOR PRESENTATION**



## SCRIPT FOR PRESENTATION

### **Introduction:**

“Good afternoon! My name is Jennifer Delnero and I am a doctoral student in Agricultural Education at Oklahoma State University.”

“The purpose of this study is to describe how secondary agricultural education teachers perceive their job responsibilities. This should only take about 30 minutes of your time.”

“Before we begin, I will be handing out a consent form, if you could read it and give your consent to participate in this study, then we can proceed.”

Collect all consent forms.

### **Directions:**

1. Pass out Q-sort statement cards and Q-sort form boards.
2. Instruct the teachers to read each of the 36 Q-sort statement cards.
3. Read the first condition of instruction, “What is your job like?”
4. Instruct teachers to begin to form 3 piles with their Q-sort statement cards.
5. Q-sort statements most like their job will be placed on the right.
6. Q-sort statements most unlike their job will be placed on the left.
7. Q-sort statements that fall in between or have no meaning will be placed in the pile in the center.
8. Pick up the pile on your right and find the 2 statements that are most like you and place them on the Q-sort form board in column 9.
9. Pick up the pile on your left and find the 2 statements that are most unlike you and place them on the Q-sort form board in column 1.
10. Pick up the pile on your right and find the 4 statements that are most like you and place them on the Q-sort form board in column 8.

**Note:** If they use all Q-sort statements in their right and left pile while they are sorting from each ends of the form board, instruct them to use their center pile.

11. Pick up the pile on your left and find the 4 statements that are most unlike you and place them on the Q-sort form board in column 2. You may have to use your center pile Q-sort statement cards.
12. Pick up the pile on your right and find the 4 statements that are most like you and place them on the Q-sort form board in column 7. You may have to use your center pile Q-sort statement cards.

13. Pick up the pile on your left and find the 4 statements that are most unlike you and place them on the Q-sort form board in column 3. You may have to use your center pile Q-sort statement cards.
14. Pick up the pile on your right and find the 5 statements that are most like you and place them on the Q-sort form board in column 6. You may have to use your center pile Q-sort statement cards.
15. Pick up the pile on your left and find the 5 statements that are most unlike you and place them on the Q-sort form board in column 4. You may have to use your center pile Q-sort statement cards.
16. Place the last 6 Q-sort statement cards in column 5 on the Q-sort form board.
17. Hand out the Condition of Instruction/Record Sheet.
18. Instruct the teachers to answer the demographic questions first. \*Remind them not to put their name on it.
19. Instruct them to the first condition of instruction question: "What is your job like?"
20. Below that question is a smaller version of your Q-sort form board, then record the numbers off of your Q-sort statement cards on your Q-sort form board to the condition of instruction/record sheet in the smaller version Q-sort form board.
21. Once all have recorded their Q-sorts for the first condition of instruction, then have them clear their Q-sort form boards off.
22. Read the second condition of instruction, "What would your ideal job be like?"
23. Repeat directions #4. through #21. After they finish recording their Q-sort for the second condition of instruction. Instruct them to answer the last question on the Condition of Instruction/Record Sheet (Post Q-sort summary question).
24. Collect all Q-sort statement cards, Q-sort form boards, and their Condition of Instruction/Record Sheets.
25. "Thank you for taking the time!!!!"

APPENDIX E

CONDITIONS OF INSTRUCTION/RECORD SHEET

Conditions of Instruction/Record Sheet

**Demographics:**

Gender (circle one): Male or Female

Age: \_\_\_\_\_

Years of Teaching Experience: \_\_\_\_\_

Type of Teacher Education

(check one):

\_\_\_\_\_ Apprenticeship (student teaching)

\_\_\_\_\_ Alternative Certification

\_\_\_\_\_ Other: \_\_\_\_\_

Size of the department, including yourself (circle one):

1 person

2 person

3 person

4 person

5 person

6 person

Region (circle one):

Central

San Joaquin

**First Condition of Instruction:**

The purpose of the Q-sort is to record your thoughts about the following question:

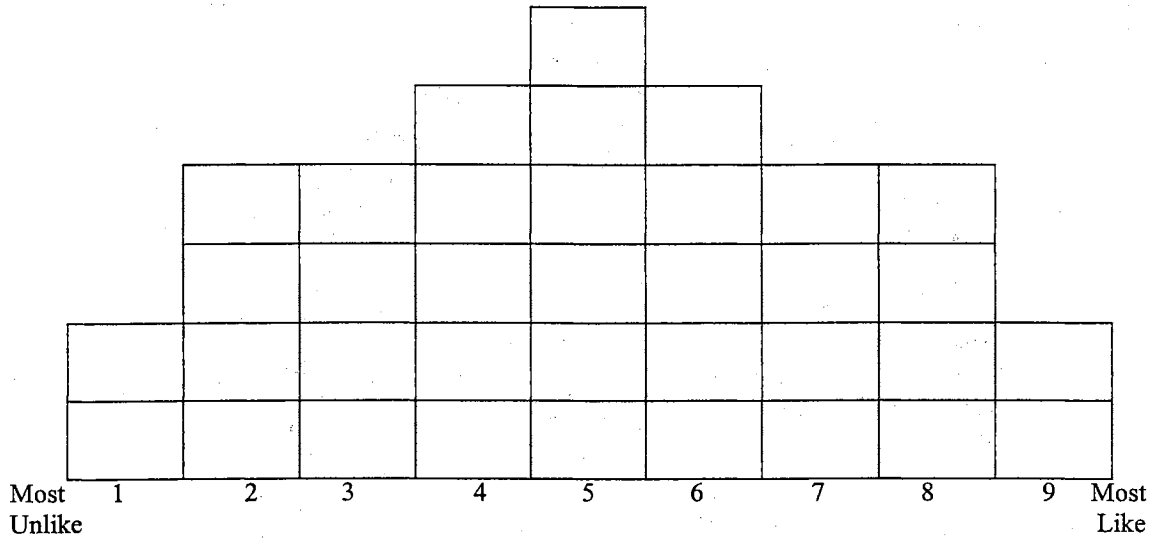
**1. What is your real job like?**

Most	1	2	3	4	5	6	7	8	9	Most
Unlike										Like

**Second Condition of Instruction:**

The purpose of the Q-sort is to record your thoughts about the following question:

**2. What would your ideal job be like?**



**Post Q-sort Summary Question:**

What comments do you have about how these sorts express your opinions?

APPENDIX F

POST Q-SORT SUMMARY  
QUESTION AND FIELD NOTES

## Post Q-sort Summary Question Answers & Field Notes

**Date: 8/18/98**

### Subject A:

*Answer for Post Q-sort Summary Question:*

“What we are doing with our program and what we should be doing may be/are 2 different things! Some activities that are high priority in the program need re-thinking as to their “rank”, validity, and importance to the program and its students. Some activities reach a very narrow student base (i.e. judging teams, showing livestock, and some FFA activities), but are often how the merit of a program is judged. (If you don’t have top placing judging teams and winning livestock, then you must be a lousy ag. teacher). Often what is taught in the classroom falls down too far on the list of priorities or is done poorly due to lack of prep time and energy!”

*Field Notes:*

“I just don’t feel that FFA/projects(SAE) should rule the ag program, but in reality they do and as we ag. teachers abide by the demands of the program. Classroom is an important area that deserves to be the most important part of the program.”

“My classroom teaching as an agriculture teacher shouldn’t be based on how many FFA activities I attend or how many projects(SAE) win at the county fair. But, ag. incentive grant governs that criteria, it does account for any time for classroom.”

I sometimes wonder if it wasn’t for us would regional supervisors have a job!”

### Subject B:

*Answer for Post Q-sort Summary Question:*

“ I would have made a move ( a Q-sort card), however, I was not sure I would give up an item (Q-sort card) to move one up. Also, I found, in order to move some up, I would have to remove others, to make it work, rather than just switch the order. An example of this would be – In order to move up administrative and staff relations, I might have to stop doing some of things above it. For me, the main thing is to do for students first and work for them to be successful.”

*Field Notes:*

“I want students to be successful with their projects (SAE) and within and outside the FFA chapter. Student success is a direct reflection on me as the ag. teacher. My order of priorities don’t allow for much “fudge room”. It has to be that way.”

“The program is set the way I want it to run, the program was not like that when I first started teaching here about 12 years ago, I have shaped it to my liking.”

**Date: 8/19/98**

### Subject C:

*Answer for Post Q-sort Summary Question:*

“I would love to have the time to be a better classroom teacher but the priorities of the program are FFA activities and student projects. I feel that at times the program runs me, instead of me running the program. Also having 5 different preps every year is not an easy task to manage, but if you need students in your program to keep your job, then program diversity is important. Working the long hours on the FFA & SAE becomes

very old after a period of time. As a rookie teacher I was not prepared for having 5 different preps and having only one prep. period to plan in.”

*Field Notes:*

“I wish there was more time in a day. We have a lot of demands placed on us from the state dept. of education, the profession, and the state dept. of ag. ed. (regional supervisors). More FFA contests, more paperwork, more of etc. My teaching in the classroom is not as important as I would like it to be.”

Subject D:

*Answer for Post Q-sort Summary Question:*

“Utilizing my time effectively might cause me to neglect an aspect of the agriculture program that I might consider unimportant. The sorts also show that I enjoy the hands-on agriculture projects more than written (i.e. recordbooks, etc.). The vocational aspect of the program is the backbone.”

*Field Notes:*

“If I don’t micro-manage my time, things in the program don’t get done on time or in a timely manner.”

“I enjoy some of the FFA activities and other are a waste of time or could be time that can be utilized somewhere else in the program. For example, doing recordbooks is a waste of time and livestock projects for fair don’t reflect today’s market price for the animal.”

“Are we really teaching kids practical concepts????”

**Date: 8/21/98**

Subject E:

*Answer for Post Q-sort Summary Question:*

“Did I develop my program or did my students develop my program?”

“It is fun to play ‘God’”.

“I have taught long enough that my teaching position (job) #1 and #2 are one in the same.

*Field Notes:*

“I view my job as my life. I love to teach students – whether it is in the classroom, assisting with projects (SAE) or FFA functions.”

**Date: 8/26/98**

Subject F:

*Answer for Post Q-sort Summary Question:*

“1. The quality of the student efforts-the program depth and breath.” “2. The outside requirements (FFA & SAE) of the ag program lost their urgency.”

*Field Notes:*

“I like to stay focused on the classroom teaching end. I have found that it is not worth my energy to get students involved with FFA activities or projects, I just do the bare minimum for the ag. incentive grant criteria. Otherwise, teaching in the classroom is my main concern.”



Subject G:

*Answer for Post Q-sort Summary Question:*

“Does quality of student(s) affect perception of how teacher delivers lesson(s)- quality of students → does that reflect quality of program. Responsibility is important – need to be responsible to be successful in producing students for tomorrow’s workforce. FFA nice but not enough time to do all things- what are my priorities? What do I pass on to my kids?”

*Field Notes:*

“I feel that my program is used for a ‘dumping’ ground for the less academic students and that as the teacher I am supposed to reform them. It is nice to have a mixture of academic and vocational students in my program. It gets tiring if the same students are placed in my program and are unmotivated, would they still be unmotivated in other classes too? I just am not a real advocate for all that FFA & SAE stuff.”

**Date: 8/28/98**

Subject H:

*Answer for Post Q-sort Summary Question:*

“I feel it is reasonably accurate, however, it is difficult to select the top two, so many of these are necessary for the success of any secondary vo-ag program. Otherwise, it is a fair representation.”

*Field Notes:*

“I think that all these statements are all equally important to a quality agriculture program. There is no way to say that any are unimportant in my opinion. Although, one of my main concerns is to provide students with good values and skills that meet society’s needs”

**Date: 8/31/98**

Subject I:

*Answer for Post Q-sort Summary Question:*

“I tend to spend much more time than I like educating people about what I do. If people only understood what I do and why I feel they would be more supportive. I also feel that at times a small number of students get the majority of my time. At times I need to step back and see what is going to get the most “bang” for my time. I also feel that all education should be focused at job skills. Every student will be employed at some point. Too much time is wasted during a students education giving them information and skills that are not job skill related.”

*Field Notes:*

“Teaching students job skills are important to me—because I am preparing them for college or the workforce, but they will always have to work (for the most part) even if they go on to college. Teach them the skills that will benefit them in the long run.”

Subject J:

*Answer for Post Q-sort Summary Question:*

“I would like my job more if it was not so time consuming. I believe a large portion of this is because there is very little outside (community) help (actual involvement). The most time consuming part of my job is the FFA aspect. I think my fellow co-worker is the reason I work so much. He believes that 80 hours a week is normal, 40 hours of teaching and 40 hours on FFA functions and student projects. I think he is from the old school where all ag teachers worked so much that family didn’t exist.”

*Field Notes:*

“Meeting the criteria for ag. incentive grants and the demands of attending FFA activities—the perspective gets lost. Did we go to college to be classroom agriculture science teachers or FFA teachers? I also have a life after I am done teaching for the day, being an ag. teacher doesn’t consume my life, as it does for others in the profession.”

**Date: 9/2/98**

Subject K:

*Answer for Post Q-sort Summary Question:*

“They make you think about what you do and what you would like to do in my job. The FFA stuff is important, but not as important as teaching skills that prepare students for the working world and being a productive member of society.”

*Field Notes:*

“When I listed the statements—I have to prioritize them based on my time schedule. Normally, there is just not enough time in the day to get to every task/duty/job that needs to be attended to. For example, managing the time to visit student projects, coaching my FFA teams, attending FFA contests, and preparing for a livestock show all in one week.”

Subject L:

*Answer for Post Q-sort Summary Question:*

“As an ag teacher and the FFA advisor my time is sometimes taken up more by my duties as FFA advisor and I don’t have the time I’d like to put towards my teaching.”

*Field Notes:*

“One duty that eats up my time throughout the year is planning for the chapter banquet. It begins from the beginning of school and ends at the end of the school year. It has grown to be quite a production with our chapter – it is like the “Oscars”.”

Subject M:

*Answer for Post Q-sort Summary Question:*

“All items mention important jobs in my program. Everything must be prioritized beginning with what is most important or critical to my specific program needs—many could be changed in place depending on the needs. For example, #16—supervise all SAE student projects depends on the definition—yes, every kid has a project that I’m aware of but, no, I have not been to all sites in the community and their homes to visit them. The key is success is the proper balance of all cards. Good survey. This could be a workshop on management.

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*Answer for Post Q-sort Summary Question:*

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*Field Notes:*

“Meeting the criteria for ag. incentive grants and the demands of attending FFA activities—the perspective gets lost. Did we go to college to be classroom agriculture science teachers or FFA teachers? I also have a life after I am done teaching for the day, being an ag. teacher doesn’t consume my life, as it does for others in the profession.”

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*Field Notes:*

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Subject L:

*Answer for Post Q-sort Summary Question:*

“As an ag teacher and the FFA advisor my time is sometimes taken up more by my duties as FFA advisor and I don’t have the time I’d like to put towards my teaching.”

*Field Notes:*

“One duty that eats up my time throughout the year is planning for the chapter banquet. It begins from the beginning of school and ends at the end of the school year. It has grown to be quite a production with our chapter – it is like the “Oscars”.”

Subject M:

*Answer for Post Q-sort Summary Question:*

“All items mention important jobs in my program. Everything must be prioritized beginning with what is most important or critical to my specific program needs—many could be changed in place depending on the needs. For example, #16—supervise all SAE student projects depends on the definition—yes, every kid has a project that I’m aware of but, no, I have not been to all sites in the community and their homes to visit them. The key is success is the proper balance of all cards. Good survey. This could be a workshop on management.

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*Field Notes:*

“Meeting the criteria for ag. incentive grants and the demands of attending FFA activities—the perspective gets lost. Did we go to college to be classroom agriculture science teachers or FFA teachers? I also have a life after I am done teaching for the day, being an ag. teacher doesn’t consume my life, as it does for others in the profession.”

**Date: 9/2/98**

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“They make you think about what you do and what you would like to do in my job. The FFA stuff is important, but not as important as teaching skills that prepare students for the working world and being a productive member of society.”

*Field Notes:*

“When I listed the statements—I have to prioritize them based on my time schedule. Normally, there is just not enough time in the day to get to every task/duty/job that needs to be attended to. For example, managing the time to visit student projects, coaching my FFA teams, attending FFA contests, and preparing for a livestock show all in one week.”

Subject L:

*Answer for Post Q-sort Summary Question:*

“As an ag teacher and the FFA advisor my time is sometimes taken up more by my duties as FFA advisor and I don’t have the time I’d like to put towards my teaching.”

*Field Notes:*

“One duty that eats up my time throughout the year is planning for the chapter banquet. It begins from the beginning of school and ends at the end of the school year. It has grown to be quite a production with our chapter – it is like the “Oscars”.”

Subject M:

*Answer for Post Q-sort Summary Question:*

“All items mention important jobs in my program. Everything must be prioritized beginning with what is most important or critical to my specific program needs—many could be changed in place depending on the needs. For example, #16—supervise all SAE student projects depends on the definition—yes, every kid has a project that I’m aware of but, no, I have not been to all sites in the community and their homes to visit them. The key is success is the proper balance of all cards. Good survey. This could be a workshop on management.

**Date: 9/15/98**

Subject Q:

*Answer for Post Q-sort Summary Question:*

“Not enough time to do what’s important - Teach. The day to day requirements of the basis program & state requirements don’t allow for time to do extra things or spend time needed time for more one-on-one instruction with students. My teaching focuses on job skills because that is what can benefit students for life.”

*Field Notes:*

“I think, that the people in the state dept. of education have forgotten what it is like to be a teacher! It is hard to be the best teacher I can be with the state dept. of education putting additional demands on us as teachers!!”

Subject R:

*Answer for Post Q-sort Summary Question:*

“I needed more spaces at each end and less in the middle!”

*Field Notes:*

“I think most of these statements are all equally important to the agriculture program. The problem is deciding which are the two most like me and then the four that are most like me etc. If you want a good program, then you better be willing to give all of your time and your life to the profession.”

**Date: 9/18/98**

Subject S:

*Answer for Post Q-sort Summary Question:*

“I don’t like paperwork and I’ve adjusted my job to my liking.”

*Field Notes:*

“It has taken me five years to adjust this job to my liking. The first was all the paperwork, but I have that ‘weeded out’. I guess that the school district and the state dept. of education think that we have all the time in the world to fill out paperwork.” I would rather teach because that is what I get paid to do.”

**Date: 9/22/98**

Subject T:

*Answer for Post Q-sort Summary Question:*

“I feel like I teach to only the ‘cream of the crop’ students and the others that get placed in my program get put aside, they aren’t involved in FFA or have no interest in a project.”

*Field Notes:*

“Counselors have used the agriculture program as the dumping ground for students that don’t make the academic cut or are the trouble makers that no other teacher wants. It gets old after awhile. I can only save so many students at one time. I try to get them interested in whatever my program has to offer (SAE, FFA, community service, etc.)”

Subject U:

*Answer for Post Q-sort Summary Question:*

“I felt that some of my job responsibilities were very general that were mentioned in the sorts. A majority of my time is spent doing FFA & SAE activities with students.”

*Field Notes:*

“I just don’t think that FFA & SAE things should eat up a majority of my time as an agriculture teacher.”

**Date: 9/29/98**

Subject V:

*Answer for Post Q-sort Summary Question:*

“I feel I don’t spend enough time in the classroom, but I spend plenty of time on FFA and SAE priorities and meeting the standards for ag incentive.”

*Field Notes:*

“I really don’t feel that I went to college to be the FFA teacher or the SAE teacher, but that I went to be an agriculture teacher. There is no balance and that FFA and SAE override the classroom. I prefer to be a classroom teacher and down scale the FFA/SAE stuff but ag. incentive grant criteria has to be met if the dept. is to get any money.”

Subject W:

*Answer for Post Q-sort Summary Question:*

“Being in a large department, my participation in all areas of the ag program is on a needs assistance basis only. We are allowed to specialize, so the sort was more difficult because I based it on my specific duties. I would have been different, with more emphasis on FFA & projects along with classroom. I find that when I look at a possible re-sort at how I would like my job to be. I couldn’t make many changes because the pull that the FFA has on the ag program. I believe it’s important; I would just like to have it not run over me so much. I would be happiest just being a classroom teacher. I don’t like dealing with the administration and I don’t do politics. The ideal would be a balance of classroom/FFA/career development.”

*Field Notes:*

“The FFA stuff is over-rated in our dept. it basically runs the whole program along with the parents. I would just like to teach and that is what I get paid to do and that is what taxpayers pay for.”

APPENDIX G  
THREE FACTOR SOLUTION

Three Factor Solution (.46 level of significance)

#	Subject	Factor 1	Factor 2	Factor 3	*Note
1	A1F37092	.8375*	.1257	.0991	
2	B1M47232	.7699*	.0963	.1711	
3	C1F30062	.6835*	-.2373	-.1721	
4	D1F30064	.7474*	.0398	.2113	
5	E1F48191	.7055*	.0504	-.1142	
6	F1M50282	.0076	.5922*	-.0154	
7	G1M47241	-.0962	-.2478	.7782*	
8	H1M45224	.4293	.2814	.6204*	
9	I1M29044	.1975	.1946	.6535*	
10	J1F28032	.7069*	.0918	.3855	
11	K1F41064	.7036*	.2202	.2825	
12	L1F36063	.7645*	-.0353	.1311	
13	M1F35132	.2124	.6314*	.1138	
14	N1F27025	.4126	.5867*	-.3226	
15	O1F29032	.6523*	.0391	.0641	
16	P1M53262	.8450*	.0877	.0205	
17	Q1M54325	-.0006	.5492*	.1371	
18	R1M52275	.3710	.0428	.3772	Non sign.
19	S1M32093	.3793	.5104*	-.1772	
20	T1M42083	.4115	.1603	.1184	Non sign.
21	U1M34102	.6564*	.1696	.3087	
22	V1F35113	.7380*	-.0730	.3460	
23	W1F43156	.4402	.5326*	-.2787	
24	A2 F37092	-.0119	.7365*	.0856	
25	B2M47232	.7699*	.0963	.1711	
26	C2F30062	-.3327	.6029*	.0950	
27	D2F30064	.3827	.4127	.4839*	
28	E2F48191	.7055*	.0504	-.1142	
29	F2M50282	.0472	.6180*	-.0430	
30	G2M47241	-.0715	-.2540	.7631*	
31	H2M45224	.4505	.2896	.5809*	
32	I2M29044	-.0514	.4262	.2278	Non sign.
33	J2F28032	.4996	.1411	.5055	Split load
34	K2F41064	.5242*	.3385	-.0923	
35	L2F36063	.0170	.3559	.5376*	
36	M2F35132	.1522	.5478*	.1595	
37	N2F27025	-.0119	.7365*	.0856	
38	O2F29032	.2447	.0452	.1554	Split load
39	P2M53262	.5281	.4757	.2949	Non sign.
40	Q2M54325	.0367	.6048*	.1465	
41	R2M52275	.2078	.0722	.6911*	
42	S2M32093	.4696*	.4329	-.0342	
43	T2M42083	.6230*	.2160	.0321	
44	U2M34102	.6658*	.2236	.3205	
45	V2F35113	.4216	-.1172	.0286	Non sign.
46	W2F43156	.224	.6665*	-.1648	
	% expl. variance	25	14	11	=50%
	Loadings	18	13	8	



APPENDIX H

Z SCORES AND ARRAY POSITIONS

	<u>Q-sort Statements</u>	Factor 1		Factor 2		Factor 3	
		Z Score	Array Position	Z Score	Array Position	Z Score	Array Position
1	Develop unique educational opportunities for special population students.	-.927	-3	.343	1	-.249	-1
2	Develop good working relationships with other teachers, staff, and administrators.	.594	1	.561	1	1.452	3
3	Infuse employability skills/workplace applications throughout all curriculums.	-.001	0	1.058	2	.385	1
4	Utilize curriculum, materials, and resources that are culturally sensitive and free from gender bias.	-.712	-2	-.967	-3	-.875	-3
5	Create and manage an attractive and functional learning environment.	.124	1	.620	2	-.871	-2
6	Incorporate a variety of teaching methods into instruction.	1.182	2	1.904	4	.680	2
7	Integrate more computer/technology-based materials into the curriculum.	-1.033	-3	.043	0	.098	0
8	Identify each student's learning style and individualize instruction accordingly.	-.561	-1	1.452	4	-.530	-1
9	Collaborate with other academic and vocational teachers.	-.677	-1	.231	0	.066	0
10	Connect classroom lesson plans with work-site learning & on-the-job experiences.	-.857	-2	.006	0	1.876	4
11	Assist students to use available resources in solving problems, decision-making and critical thinking.	.751	1	1.050	2	.461	1
12	Utilize quality student assessment strategies.	-.320	0	-.682	-2	.168	1
13	Plan and assist with the chapter FFA program of activities.	1.374	3	.113	0	.784	2
14	Coach a variety of Career Development Events (judging teams).	.882	2	.413	1	-1.421	-3
15	Direct all FFA community service projects and activities.	.198	1	-.629	-1	-.611	-2
16	Supervise all student SAE projects.	1.542	3	-.651	-2	.988	2

#	<u>Q-sort Statements</u>	Factor 1		Factor 2		Factor 3	
		Z Score	Array Position	Z Score	Array Position	Z Score	Array Position
17	Participate in FFA activities at sectional, regional, and state levels.	1.564	4	1.393	3	.067	0
18	Coordinate annual FFA chapter banquet.	1.220	3	-6.98	-2	-.684	-2
19	Assist students with their record books.	1.466	3	.185	0	1.176	3
20	Infuse school-to-work concepts into student organization activities.	-.642	-1	-.234	-1	.262	1
21	Assist students with their projects at livestock shows.	.864	2	-1.766	-3	1.609	4
22	Direct livestock selection for student's projects.	.900	2	-2.320	-4	-.190	0
23	Encourage students to participate in FFA activities.	1.917	4	1.062	3	1.044	2
24	Showcase student achievements.	-1.662	-4	.648	2	-.383	-1
25	Expand recruitment strategies to reach all student populations.	-.307	0	.199	0	-.438	-1
26	Modify programs to meet local job opportunities.	-.637	-1	.271	1	1.396	3
27	Conduct follow-up studies to track former students.	-1.114	-3	-1.490	-3	.075	0
28	Maintain effective advisory committee meetings throughout the year.	-.515	0	-.521	-1	.096	0
29	Attend school board meetings on a regular basis.	-1.413	-3	-1.871	-4	-1.123	-3
30	Search for grants and funding for program enhancement.	.663	1	1.259	3	-.333	-1
31	Continue formal education and other professional development opportunities.	.061	0	1.082	3	-.565	-2
32	Complete self-assessment processes and plan for modifications.	-.898	-2	-.929	-2	.186	1
33	Participate periodically in business and industry experiences.	-.685	-2	-.406	-1	1.172	3
34	Provide leadership in professional organizations.	-.060	0	-.359	-1	-1.659	-4
35	Write articles for professional publications.	-1.744	-4	-.932	-3	-2.511	-4
36	Network at every possible opportunity about the program.	-.538	-1	.566	-1	-1.599	-3

VITA<sup>2</sup>

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Doctor of Philosophy

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