

PERCEPTIONS OF WORK AMONG CALIFORNIA AGRICULTURE TEACHERS

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Abstract

Agricultural education programs have changed as American society changes. The role of the agriculture teacher evolves with these changes. The evolution of the role includes the expansion of job responsibility, professional development, and academic accountability across several scientific, business, and humanity fields (Conroy & Kelsey, 2000; National Research Council, 1988). In addition to classroom responsibilities, agriculture teachers are involved with student organizations, community service, and collaboration with community members and leaders. The purpose of this study was to describe how secondary agriculture teachers in California perceive their work. Using Q method as a research approach, 23 secondary agriculture teachers from the Central and San Joaquin regions of the California Agriculture Teachers Association were invited to participate in the study. The instrument used to collect data was a Qsort of 36 statements describing various teaching responsibilities, which were extracted from the literature and interviews with teachers in agricultural education. Qsort is an activity of ranking statements. Participants sorted the statements twice: once for their actual perceptions of work and another time for their perceptions of ideal teaching in agriculture. The 46 Q-sorts were analyzed using Q factor analysis resulting in three theoretical perceptions of work. These factors were interpreted as Activities Coach, Academic Teacher, and Vocational Mentor. Results have implications for professional development for these types of teachers.

Introduction

Over the years secondary agricultural education programs have evolved to meet changing school environments and societal demands. As the emphasis in agriculture shifted from solely production needs to include processing and marketing, there was an increasing demand for agriculture educators with a wider variety of skills in both rural and urban settings. Professional development for pre-service and in-service teachers is designed to develop the skills and abilities needed for the demands of the varied work, which builds efficacy (Edwards & Briers, 2000) and increases teacher retention (Knight & Baker, 2000). As mentorship programs increase as strategies to induct and retain beginning agricultural educators (Knight & Baker, 2000), the identification of the self-perceptions of the work that the veteran teachers conduct becomes paramount. Understanding the nature of what teachers in practice deem as

their ideal agricultural education job assists in planning professional development for these types of agriculture teachers to reach their goals in teaching. Teacher education programs, professional development through in-service programs, continuing education and university programs benefit by understanding the career path and motivation of teachers working in agricultural education programs.

Teaching roles and responsibilities include a variety of skills, such as knowing several areas 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; complying with applicable laws and government regulations; and participating in professional service and staff development activities (Scrivens,

1997). In addition to the many responsibilities associated with instruction, teachers in agriculture conduct Supervised Agricultural Experience (SAE) programs, the National FFA Organization (National Research Council, 1988; Phipps & Osborne, 1988), and multiple service activities within the community. These added teacher responsibilities, along with the community leadership role that secondary agriculture education teachers play, make such a teaching job challenging.

The phenomenon of increasing job responsibilities in agricultural education is documented in the literature. Early studies reported growing lists of responsibilities (Juergenson, 1965; Lockwood, 1976). One finding of the study conducted by the National Research Council (1988) was that secondary agriculture teachers often spend a great deal of time "helping students excel in traditional production oriented FFA contests and award programs" (p. 43) and less time on classroom instruction. Goode and Stewart (1981) noted that at least eight time-consuming activities were added to the list of agriculture teacher responsibilities in Iowa in an 18-year period. More recently, it was determined that "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). Although job responsibilities have expanded, little is known about how teachers view their current work.

The purpose of this study was to describe the self and ideal perceptions of the work conducted by secondary agriculture teachers in California using Q-methodology to assess the subjective views of the teachers (Brown, 1980; Stephenson, 1953). The theoretical framework for articulating the work responsibilities of the agricultural educator was developed by combining professional teaching responsibilities according to Scrivens (1997) and agricultural teaching duties described by Phipps and Osborne (1988). The major objective of this research was to describe career perceptions and the nature of the

work of agriculture teachers in California according to those who hold diverse opinions about their work (Brown, 1980) in order to assist in determining appropriate professional development responses.

Method

Q method was chosen as a research method to identify the personal viewpoint, beliefs, opinion, or subjective meaning in an attempt to define the general types or patterns of perceptions held by a particular group, in this case, California agriculture teachers. The research method was developed in the 1930's by William Stephenson and described as an instrumental and philosophical approach to the study of subjectivity (Stephenson, 1953). This approach to studying subjectivity includes a statistical structure to which qualitative procedures, including interviews, have contributed to the interpretation of the findings. Here, the participants, instrument development, and procedures are described.

Participants

California is well-known for its increasing urbanization and diversity in both the agricultural production and agricultural marketing industry. It ranks with Texas as the states with the largest number of secondary agricultural education programs employing the greatest number of teachers. The two regions in California that employ the highest number of secondary agriculture teachers are Central and San Joaquin. These districts were chosen as most appropriate to provide a representation of the diversity of the population of Agriculture teachers in California because of their size. According to Stephenson (1953) and Brown (1980), the selection of the sample for a study using Q-methodology involves assuring a diverse range of opinions about the topic studied rather than the number of subjects chosen. Indeed, since the factor matrix is rotated in the statistical analysis in Q factor analysis, the number of statements representing various viewpoints is of greater relevance than the number of subjects chosen.

In an attempt to secure at least twenty teachers who would each sort the statements twice (once according to their views about their job and another time according to their

views about an ideal agricultural teaching job) yielding an analysis of 46 sorts, twenty-three secondary agriculture teachers were invited to represent the two large regions of several diverse educational districts in California. Each district contained high schools with agricultural programs. Central region has 58 and San Joaquin has 61 agriculture high school programs.

To maintain a representation for gender, geographical characteristic of the school (rural and urban), and agriculture department size (one person and two or more), thirteen teachers were selected from the Central region and ten from the San Joaquin region in the California Agricultural Education Association directory. Expecting attrition from the Central region, the numbers were purposely unequal; however, all 23 phone invitations were accepted and appointments were made to collect data in a personal interview.

There were eleven males (five from Central; six from San Joaquin) and twelve females (eight from Central and four from San Joaquin) participating in the research. Their ages ranged from 27 to 54 years, with a mean of 39.3 and a standard deviation of 8.8. There was greater variability in the reported years of 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.

Twenty-two participants identified apprenticeship (student teaching) as the type of teacher education program in which they received credentials; whereas, one female from the San Joaquin region had taken the National Teachers' Examination (NTE) for alternative certification. The average department size was three teachers, ranging in size from one to six. The department size distribution was: 2 teachers from a one-person department; 9 from a two-person; 4 from a three-person; 4 from a four-person; 3 from a five-person; and 1 from a six-person department.

Instrument Development

The concourse (Stephenson, 1978), all possible opinions about the topic of study, comprises the raw material for Q methodology. The statements of opinions

extracted as a sample from the concourse are developed to be administered in a Q sort (Brown, 1993). A concourse can be collected in a number of ways. The two most typical methods include reviewing literature (theoretical) and/or interviewing people (naturalistic) and recording what is said (McKeown & Thomas, 1988). Because the concourse for this study was drawn from several theoretical sources and in-depth interviews, it was considered a hybrid, utilizing both naturalistic data and a theoretical framework. The theory depicted was a combination of Scriven's (1997) teacher professional responsibility descriptions, and Phipps and Osborne's (1988) description of agricultural teacher work responsibilities. Interview data were collected from twenty California secondary agriculture teachers who would not be participating in the study. Each individual was asked to describe his or her work. The analysis of the interview data was combined with the literature descriptions to determine the theoretical structure representing secondary agriculture teacher duties. The three areas emergent from this analysis and literature review were: classroom and lab instruction; SAE and FFA; and administrative and professionalism.

A total of 156 statements were pooled together from interviews, the research, and literary sources. A panel of three agriculture teachers, who would not be participating in the study and were known to the researcher, reviewed all 156 statements for the following criteria: (1) representation of the theoretical construct; (2) non-redundant statements; (3) full range of opinions or ideas represented in the construct; and (4) use of language familiar among agriculture teachers. Content analysis of all statements produced twelve statements for each category in classroom or lab instruction; FFA and SAE; and administration and professionalism. The statements are presented in Table 1.

Table 1
Q-sort Statements

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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 record books.
 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.
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A group of agriculture teachers from Oklahoma highly experienced in teaching agriculture pilot tested the Q-sort instrument for clarity, simplicity, and general readability. After modification, the statements were printed on individual cards to be sorted according to the Q-sort form board, which was constructed with a range of nine columns and the frequencies for placement of statements of 2 – 4 – 4 – 5 – 6

– 5 – 4 – 4 – 2. That is, two statements were placed in column one, four in column two, and so on. The array positions for columns one through nine were given values of -4, -3, -2, -1, 0, 1, 2, 3, and 4 for statistical analysis. Table 2 demonstrates the relationship of the number of statements to be placed in each column with the column statistical value and the sorting position.

Table 2
Q-sort range and distribution

Number of statements in each column	2	4	4	5	6	5	4	4	2
Statistical value of statement place in column	-4	-3	-2	-1	0	+1	+2	+3	+4
Sorting position to assist in sorting procedure	1	2	3	4	5	6	7	8	9

The 36 statements are sorted using a form board depicted in Figure 1 to assist the sorter.

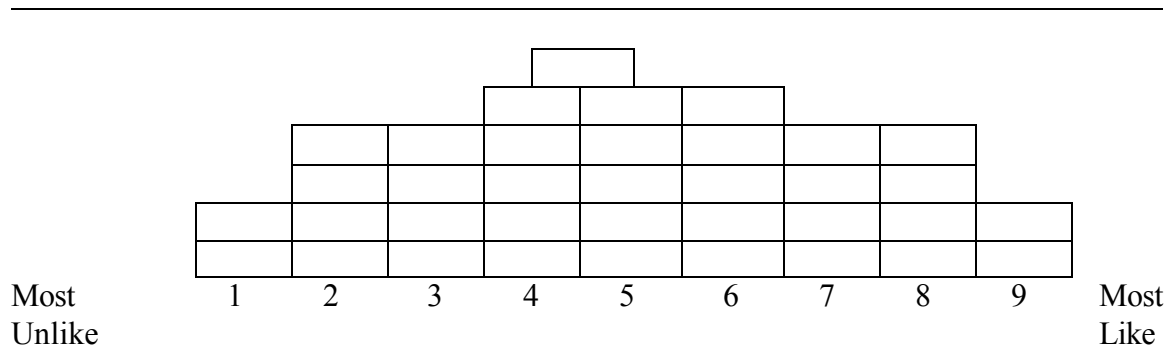


Figure 1. Q-sort form board

Procedure

The Q-sort was administered individually after consent forms were secured. Teachers sorted the statements based on two conditions of instruction: 1) “What is your job like?” and, (2) “What would you want your ideal job in agricultural education to be like?”

The sorting procedure was standardized with each teacher first sorting statements

into three piles for each condition of instruction. Statements most like their perceptions of their work were placed in a pile on the right. Statements most unlike their work were placed in a pile on the left. Statements that held no particularly strong reactions or had no particular meaning to the teachers were placed in a center pile. Teachers moved the statements from the three piles onto the Q-sort form board to

represent their distribution of their ranking. The placement of statements alternated from each of the most like and most unlike piles to the ends of the distribution, working towards the center column. Statement numbers were recorded onto a data record sheet after each sort. Teachers responded to a short interview and a post-sort summary question in writing. Field notes were recorded during the interview.

Data analysis involved the sequential application of three sets of statistical procedures including correlation, factor analysis and rotation, and computation of factor scores. Q factor analysis differs from the traditional R method in that subjects or their various Q-sorts load significantly on factors, rather than the item or statements in the Q-sort. This means the statistical matrix is inverted for analysis. Determining the best factor solution in Q method means evaluating the number of Q-sorts (teachers actual and ideal sorts) for each factor, not items or statements on each factor (R method). This method allows for the interpretation of the factors using the theoretical array of statements using the comparison of factor scores (especially consensus and distinguishing items among the factors), interview data and demographic information. Interpretation of factors extends beyond statistical analysis to theoretical criteria, which included interview data, previous literature, and researcher interpretations (Brown, 1980).

Findings

Three predominant beliefs emerged as factors from the analysis of the teachers' perceptions of their work. The three factors were interpreted and named the Activities Coach, Academic Teacher, and Vocational Mentor. The theoretical framework used for

the study (Phipps & Osborne, 1988; Scrivens, 1997) was useful for the interpretation of the subjective views of the three basic perceptions of the work of secondary agriculture teachers.

Activities Coach. Of the 46 Q sorts, 18 loaded on this factor, the perception that accounted for the greatest amount of variance in the analysis (25%). Twelve of the 23 teachers participating in the study perceive the Activities Coach as their actual job. Eight of these teachers were from the Central region (7 females, 2 male) and 4 were from San Joaquin (2 females and 2 males). Six of the 23 teachers would describe their ideal work as this factor. Three of these taught in the Central region (2 females, 1 male) and 3 from San Joaquin (all male). Three Central male teachers and one San Joaquin male teacher (these men had 6-23 years of experience) viewed the work they did as the same as what they perceive their ideal work were employed in large teacher sized departments.

The statements used to describe the perception of work are denoted in Figure 2. Using Table 1 to determine the full statement, the reader will notice that often the statements in the area of "Most Like" on the array relate to SAE and FFA activities. This perception focuses on involvement with FFA chapter activities and included building an interest in students to become more active in FFA. Teacher involvement with a student's project was important. Other statements deal with responsibilities directly related to intra-curricular components of the secondary agricultural education program.

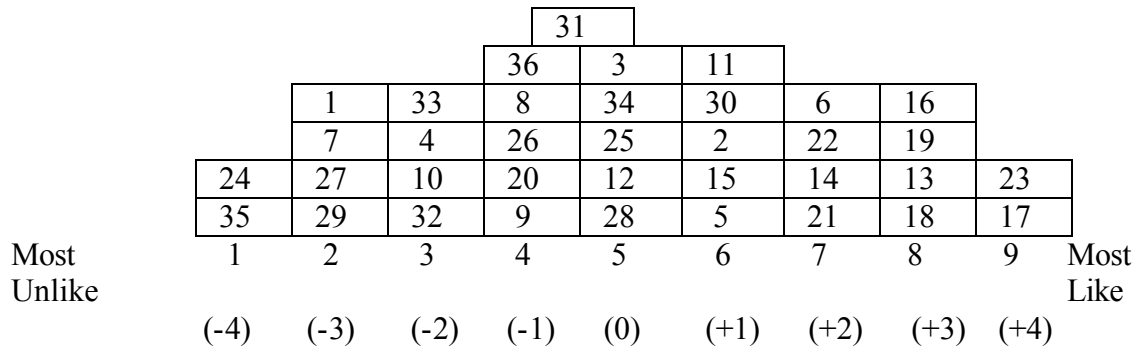


Figure 2. Statement position for activities coach factor.

*Numbers in array position represent the number of the statement from Table 1.

Statements that support this interpretation include:

- 23) Encourage students to participate in FFA activities (array position or column number is 4, z-score is 1.917);
- 17) Participate in FFA activities at the sectional, regional, and state levels (4, 1.564);
- 16) Supervise all student SAE projects (3, 1.542);
- 19) Assist students with their record books (3, 1.466);
- 13) Plan & assist with the chapter FFA program of activities (3, 1.374); and
- 18) Coordinate annual FFA chapter banquet (3, 1.220).

To further support the idea that the activities associated with FFA and SAE were important to this type of work, the following interview comments. One experienced male teacher stated, "I want students to be successful with their projects and within the FFA chapter." Another experienced female stated, "I love to teach students about their projects, whether it is in the classroom, assisting with projects (SAE) or FFA functions."

The Activities Coach finds detailed professional activities as less like this perception of work as noted by the "Most Unlike" statements (see Figure 2 and Table 1):

- 35) Writing articles for professional publications (-4; -1.744).

- 24) Showcasing student achievements (-4; -1.662), and

- 29) Attending school board meetings on a regular basis (-4; -1.413);

Academic Teachers. Of the 46 Q sorts, 13 loaded on this factor, the perception that accounted for 14% of variance in the analysis. Only 6 of the 23 teachers participating in the study perceive the Academic Teacher as their actual work. Two of these teachers were from the Central region (1 female, 1 male) and 4 were from San Joaquin (2 females and 2 males). Seven of the 23 teachers would describe their ideal work as this factor. Four of these taught in the Central region (3 females, 1 male) and 3 from San Joaquin (2 females, 1 male). Two Central teachers (1 female with 13 years of teaching experience, 1 male with 28 years) and three San Joaquin teachers (2 female with 15 years of teaching experience, 1 male with 32 years) viewed the work they do as the same as what they perceive their ideal work.

The statements used to describe the work of the Academic Teacher deal with student learning and classroom instruction (See Figure 3 and Table 1). This type of teacher concentrates on individualizing instruction and enhancing their program through teaching strategies. Student organizations contribute to the ways to meet individual student needs.

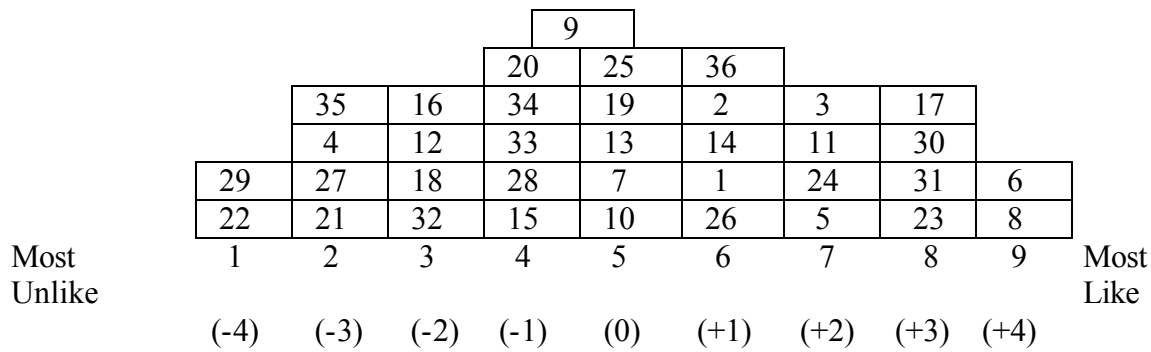


Figure 3. Statement position for academic teacher factor*

*Numbers in array position represent the number of the statement from Table 1.

The Academic Teacher seeks professional development to continue to meet student need. This teacher seems to strive for a balanced program incorporating FFA and SAE experiences to enhance classroom instruction, rather than the intra-curricular activities dominating the program. Statements representing the highest z-score on Q-sorts for this factor include:

- 6) Incorporate a variety of teaching methods into instruction (array position 4, z-score 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); and
- 23) Encourage students to participate in FFA activities (3, 1.062).

Further evidence illuminating the interpretation of the Academic Teacher was found in interview comments. An experienced male teacher with many 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 agriculture 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." An experienced male teacher 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 mid-career female stated, "I prefer to be a classroom teacher and down scale the FFA/SAE stuff."

Notice the difference for statement 22) Direct livestock selection for students' projects. The Academic Teacher feels this statement is a -4, most unlike his or her work; whereas, the Activities Coach ranks the statement relatively high (most like) in a +2 column. Additionally, statement 21) Assist students with their projects at livestock shows, is something that is described as unlike the Academic Teacher (-3 array position); but, more like the Activities Coach. Other statements that distinguish the two types of teachers and are more descriptive of the Activities Coach are listed below with the array position in parentheses (Activities Coach given first, then Academic Teacher):

- 16) Supervise all student SAE projects (+3, -2)
- 18) Coordinate annual FFA chapter banquet (+3, -2)
- 19) Assist students with their record books (+3, 0); and

13) Plan and assist with the chapter FFA program of activities (+3, 0).

Vocational Mentor. Of the 46 Q sorts, 8 loaded on this factor, the perception that accounted for 11% of variance in the analysis. Only 3 of the 23 teachers participating in the study perceive the Vocational Mentor as their actual work, all three of these male teachers were from the

Central region with no actual perceptions represented from teachers from San Joaquin. Five of the 23 teachers would describe their ideal work as this factor. Four of these five taught in the Central region (2 females, 2 males) and a male teacher from San Joaquin. Only two males teachers from the Central region view their actual work as the same as their ideal work.

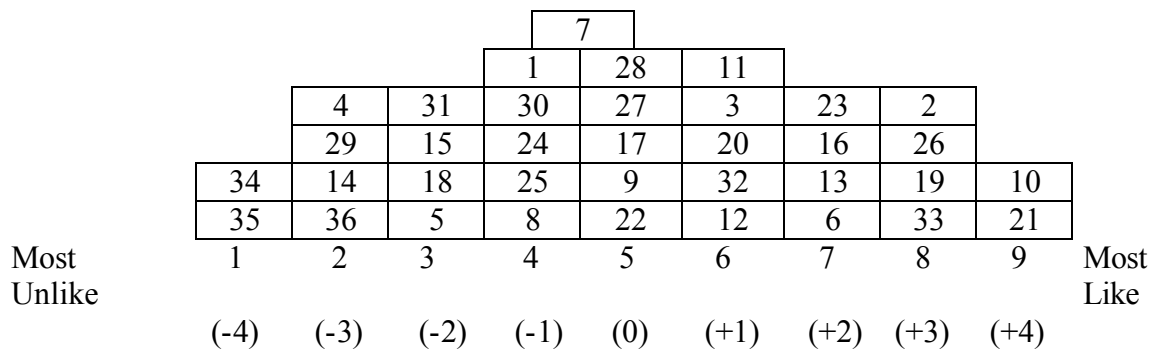


Figure 4. Statement position for vocational mentor factor*

*Numbers in array position represent the number of the statement from Table 1.

Statements defining the Vocational Mentor relate to community activities, involvement with local business and industry, work place skills, and real-world learning experiences (See Figure 4 and Table 1). The Vocational Mentor believes classroom instruction must be made meaningful in terms of real-life work experiences. Classroom learning is related to community jobs for students. These teachers view relationships in the community and at school as essential in their perceptions of their work, perhaps seeing what they do in the community as a mentorship role for how students will be successful in life. Vocational mentors may devalue professional development when compared to the other types of teachers. Statements in the theoretical array (Figure 4 and Table 1) to support this interpretation are:

10) Connect classroom lesson plans with work-site learning & on-the-job experiences (array position 4, z-score 1.876);

- 21) Assist students with their projects at livestock shows (-3, -1.766); and
- 2) Develop good working relationships with other teachers, staff and administrators (3, 1.452)

These teachers do not believe that their work includes a focus on livestock. Nor, do the Vocational Mentors view school board meetings as a mechanism for community involvement. Note the statements used for most unlike their perception of work:

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

Additional evidence includes the following data collected from teachers' responses during post-sort interviews. An experienced male teacher with over 20 years of teaching experience stated, "Responsibility is important – we need to be responsible to be successful in producing

students for tomorrows workforce.” Another experienced male teacher indicated, “One of my main concerns is to provide students with good values and skills that meet society needs.” A mid-career male said, “I am preparing them for college or the workforce...” A mid-career 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.” An experienced male indicated, “My teaching focuses on job skills because that is what can benefit students for life.” These data reveal a strong value for the greater society, life after secondary school, and a focus on the future of the students.

Notice how the following statements differentiate the three types of teacher perceptions, with Activities Coach, Academic Teacher, and Vocational Mentor array positions given in parentheses:

- 36) Network at every possible opportunity about the program (-1, 1, -3);
- 8) Identify each student’s learning style and individualize instruction accordingly (-1, 4, -1);
- 14) Coach a variety of Career Development Event teams (judging teams) (2, 1, -3); and

- 31) Continue formal education and other professional development opportunities (0, 3, -2).

Although opinions differ on many statements, it is particularly interesting and relevant to the objective for this research to notice the differences in beliefs about professional development. In comparing the three types of teachers, the evidence demonstrates a difference in perceived needs for professional development with the Academic Teacher describing it to be most like their view of agricultural teacher work. These teachers view professional development as more formal and instructional. Other teachers view networking with teachers or learning about their students as more important aspects of their professional development.

Discussion

This study found three self and ideal perceptions of work among California agriculture teachers. The Activities Coach views work as an emphasis on the FFA/SAE aspect of the job, the Academic Teacher views work as meeting the needs of the individual student focusing on a classroom instruction setting, and the Vocational Mentor focused on teaching job skills that prepared students for the workforce, while maintaining and modeling school and community relationships.

Table 3
Actual and Ideal Q-Sort Comparison by Teacher

Participant	Activities Coach	Academic Teacher	Vocational Mentor	Notes
C1	A	I		
C2	A I			
C3	A	I		
C4	A		I	
C5	A I			
C6		A I		
C7			A I	
C8			A I	
C9			A	I = non. sign.

Table Continues

Table 3 (Continued)

Participant	Activities Coach	Academic Teacher	Vocational Mentor	Notes
C10	AI*		I*	*split - load
C11	AI			
C12	A			
C13		AI		
SJ14		AI		
SJ15	AI*		I*	*split - load
SJ16	A			I = non. sign.
SJ17		AI		
SJ18			I	A = non. sign.
SJ19	I	A		
SJ20	I			A = non. sign.
SJ21	AI			
SJ22	A			I = non. sign.
SJ23		AI		

C= Central; S= San Joaquin; A= Actual; and I = Ideal

An interesting way to conclude the findings of this study is illustrated in Table 3, in which the actual work Q-sort is compared to the ideal work Q-sort for each of the 23 teachers. Based on the findings of this study, over half of the teachers (13) view the work they are doing as the ideal work necessary for agricultural education. Professional development would be most successful if these teachers would share their successes with others through case studies, reflective journals, or networking conferences. Most agriculture teachers are satisfied with their work and should be encouraged to share what they believe is working for them. Through this professional mentorship model of conversation and networking, skills and other perspectives might be gained for the mentors.

Two teachers currently view their work as Activities Coach and the ideal work as Academic Teacher; whereas, only one teacher who currently is an Academic Teacher would want to be an Activities Coach. Not one teacher who views their work as an Academic Teacher would want to be a Vocational Mentor; nor, do current Vocational Mentors view Academic Teacher as the ideal work. These comparisons demonstrate important and pragmatic concerns when planning for professional

development. In other words, teachers who are satisfied with their job and do not place professional development as a top priority, such as the Vocational Mentor, might need a highly interactive program with the community. Such a degree program must involve intensive and extensive practicum sites and internships with agencies. Community leaders instead of university theorists might teach and coordinate such professional development.

On the other hand, those teachers who describe professional development as part of their work, such as the Academic Teacher, might welcome more traditional topics related to student academic needs. They would be candidates for theory courses in education, curriculum development workshops, or ways to accommodate diverse learners.

Another trend worthy of observation is that most veteran teachers from both regions perceived their ideal work as the type of work they are actually doing. Overall, more female agriculture teachers than males viewed their ideal job to be academically focused with less emphasis in the SAE and FFA components of the program. It seems these findings have implications for professional development for novice and veteran teachers. In addition, particular methods to narrow the gap between

perceptions of the work that one does and one's ideal teaching practice could be considered for some teachers.

A final observation relevant to the findings of this study is the potential use of Q methodology to determine trends in the field of agricultural education. These findings provide extensive implications for professional development at both pre-service and in-service levels of teacher education, further research is necessary to describe curricula appropriate for each career path of the three types of teachers found in this study. Furthermore, Q method would be useful to determine how the retirement of veteran teachers effects professional development needs.

References

- Brown, S. (1993). A primer on Q methodology. *Operant subjectivity*, 16, 90-138.
- Brown, S. (1980). *Political subjectivity: Applications of Q methodology in political science*. New Haven, CT: Yale University Press.
- Conroy, C. A., & Kelsey, K. D. (2000). Teacher education response to 'Reinventing Agricultural Education for the Year 2020': Use of concept mapping to plan for change. *Journal of Agricultural Education*, 41(1), 8-17.
- Edwards, M. C., & Briers, G. E. (2000). Experience, efficacy, and teaching longevity: Why do early-career teachers leave the profession? *The Agricultural Education Magazine*, 72(5), 20-21.
- Ennis, F. M. (1991). *The prioritization of agricultural education teachers responsibilities as perceived by vocational administrators and agricultural education teachers*. Unpublished master's thesis, Michigan State University, East Lansing.
- Goode, J., & Stewart, R. R. (1981). Priorities of Missouri teachers of vocational agriculture regarding teaching, civic, church, family, and self-rated activities. *Journal of American Agricultural Education Teachers Association*, 22 (2), 35.
- Juergenson, E. M. (1965). *The job of the teacher of agriculture*. Unpublished manuscript, University of California at Davis, Department of Agricultural Education.
- Knight, J., & Baker, M. (2000). How are we doing to keep them down on the farm (oops, the school)? *The Agricultural Education Magazine*, 72(5), 6-7.
- Lockwood, L. (1976). What are the priorities in your job? *American Association of Teacher Educators in Agriculture*, 48 (11), 248-249.
- McKeown, B., & Thomas, D. (1988). *Q methodology*. Newbury Park, CA: Sage.
- National Research Council. (1988). *Understanding agriculture: New directions for education*. Washington DC: National Academy Press.
- Phipps, L. J., & Osborne, E. W. (1988). *Handbook on agricultural education in public schools*. Danville, IL: Interstate.
- Scrivens, J. H. (1997). *Evaluating teaching*. Thousand Oaks, CA: Sage.
- Stephenson, W. (1953). *The study of behavior: Q technique and its methodology*. Chicago, IL: The University of Chicago Press.
- Stephenson, W. (1978). Concourse theory of communication. *Communication*, 3, 21-4.