A Profile of Cooperating Teachers and Centers in Oklahoma: Implications for the Student Teaching Experience in Agricultural Education

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Abstract

This inquiry is the first systematic study of cooperating teachers' perceptions of the agricultural education student teaching experience in Oklahoma in more than three decades. The sampling frame (N = 64) included cooperating teachers representing 55 student teaching centers. A questionnaire was sent to cooperators via postal mail. The instrument included 13 items identifying selected characteristics of cooperating teachers and centers. In addition, teachers rated 34 elements of the student teaching experience using a Likert-type scale ("5" = "High Importance . . ."1" = "No Importance"); final return rate was 77%. Cronbach's coefficient alpha reliability estimates for five core areas of the student teaching experience ranged from .47 to .87; the overall importance scale yielded an estimate of .93. Respondents rated 33 of 34 elements as having "much importance" or greater (M > 4.00). The highest rated element was "a well rounded program emphasizing instruction, SAEs, and youth leadership activities" (M = 4.92; SD = .34). The core area "Cooperating Teacher-Student Teacher Relationships" accounted for seven of the ten highest rated elements. Recommendations and implications point to the need for greater diversity in cooperating teachers and centers, for instrument re-design as related to the construct of instruction, and for the provision of targeted professional development opportunities for cooperating teachers.

Introduction and Conceptual Framework

Is there a more important component of the preservice professional development of aspiring agriculture teachers than the student teaching experience? Earlier researchers (Barnes & Camp, 2002; Covington & Dobbins, 2004; Deeds, 1993; Deeds, Arrington, & Flowers, 1988; Deeds, Flowers, & Arrington, 1991; Dobbins & Camp 2000; Edwards & Briers, 2001; Harlin, Edwards, & Briers, 2002; Larke, Norris, & Briers, 1992; Roberts & Dyer, 2004) have described important dimensions of the student teaching experience in agricultural education. Deeds collected data from 82 institutions, nationally, that were charged with agricultural teacher education. Larke et al. conducted a national study that queried three groups—teacher educators, supervising teachers, and student teachers. Covington and Dobbins (2004) carried out a nationwide modified Delphi panel consisting of teacher educators and secondary agricultural education teachers to determine a task list for the student teaching experience. Barnes and Camp, Deeds et al. (1991), Dobbins and Camp, Edwards and Briers, Harlin et al., and Roberts and Dyer reported the perceptions of cooperating teachers and/or student teachers representing different states: Florida, Mississippi, North Carolina, South Carolina, Texas, and Virginia.

However, the last systematic study of Oklahoma cooperating teachers regarding their views about important elements of the student teaching experience in agricultural education was conducted more than 30 years ago (Holley, 1972). Arguably, many changes have occurred in secondary agricultural education, in education generally, in the agricultural, food, fiber, and natural resources system, and in American society during the last three decades.

Importance of the Student Teaching Experience

Norris, Larke, and Briers (1990) asserted, "The student teaching center and the supervising (cooperating) teacher are the most important ingredients in the student teaching experience" (p. 58). Moreover, Korthagen and Kessels (1999) argued that a cooperating student teaching center "must be able to offer a sound balance between safety and challenge and a balance between the goal of serving student teachers' learning and the interests of the school" (p. 14). Further, "Priority should be given to selecting cooperating teachers who model the desired teaching behaviors expected of student teachers" (Garton & Cano, 1994, p. 213).

Researchers (Byler & Byler, 1984; Deeds & Barrick, 1986) have identified positive relationships between cooperating teachers' attitudes and morale toward teaching secondary agricultural education and perceptions held by preservice students following their field experiences. DeMoulin (1993) maintained that, "students should exhibit positive changes in attitude toward teaching and come away from the student-teaching experience with a positive attitude toward their chosen profession" (p. 160).

Martin and Yoder (1985) framed a successful student teaching experience as one in which a "team approach" (p. 19) exemplified the cooperating teacher-student teacher relationship, including a supervisory "climate" devoted to using a clinical teaching analysis model. The researchers contended that "success of the individual student teacher

depends, to a very great extent, upon the general supervisory climate in the department and on the educational leadership abilities of the cooperating teacher" (p. 21). Martin and Yoder concluded that, "Supervision of student teachers represents an important responsibility" (p. 21). Many teacher educators opine that it is a responsibility demanding diligent and sustained inquiry.

Conceptually, this study is supported by Ajzen's (1991) work describing the role of beliefs in human behavior. In particular, the construct of *belief salience*, i.e., "a relation between a person's *salient* beliefs about the behavior and his or her attitude toward that behavior" (p. 192) exists and therefore informs one's perceptions. Accordingly, it was posited that cooperating teachers' perceptions are valid reflections of their attitudes regarding importance of selected elements of the student teaching experience. But what are Oklahoma cooperating teachers' perceptions of important elements of the student teaching experience in agricultural education?

Purpose and Research Questions

The two-fold purpose of this study was to describe what cooperating teachers perceived to be important elements of the student teaching experience, and to identify selected characteristics of cooperating teachers and centers. The following research questions guided this study: 1) What do cooperating teachers' perceive to be important elements of the student teaching experience in agricultural education? 2) What are selected personal, professional, and school setting characteristics of cooperating teachers?

Methods and Procedures

This descriptive study sought to describe cooperating teachers' perceptions of important elements of the student teaching experience, and to identify selected characteristics of cooperating teachers and centers. The study's sampling frame (N = 64) included teachers and schools who had either served as cooperating student teaching centers previously or who were future placement sites for student teachers from Oklahoma State University; thus it was a purposive sample. Potential cooperating teachers and centers were derived from a list based on established selection criteria as well as input received annually from potential cooperators—teachers and their principals,—selected state staff members, and teacher education faculty.

The data collection instrument was developed by Edwards and Briers (2001) for use with agricultural education cooperating teachers in Texas. These researchers used cooperating teacher focus groups to identify 34 elements of the student teaching experience per five "core" areas derived from a review of literature (Briers & Edwards, 1998; Edwards & Briers, 1999; Larke et al., 1992; Martin & Yoder, 1985). Items were validated further via a postal mail questionnaire follow-up procedure (Edwards & Briers, 2001).

Part one of the instrument was divided into five "core" areas of the student teaching experience and included 34 "important elements": classroom and laboratory

instruction (5 items; α = .47), supervised agricultural experience programs (SAEPs) (4 items; α = .61), student leadership development (FFA) (7 items; α = .85), school and community relationships (9 items; α = .83), and cooperating teacher-student teacher relationships (9 items; α = .87). Teachers were asked to indicate their perceived "level of importance" for the elements using a Likert-type rating scale: "5" = "High Importance," "4" = "Much Importance," "3" = "Some Importance," "2" = "Low Importance," and "1" = "No Importance." Cronbach's coefficient alpha reliability estimates for the five core areas ranged from .47 to .87; the overall importance scale yielded an estimate of .93. Part two of the instrument included 13 items identifying selected characteristics of cooperating teachers and centers. The instrument was modified slightly to reflect Oklahoma school setting characteristics and teachers.

Cooperating teachers were postal mailed a research packet during the spring of 2004 that included a cover letter explaining the study, a questionnaire, a pre-coded scan sheet, and a return envelope coded to determine non-respondents. Following a two-week waiting period, non-respondents were contacted and encouraged to return their questionnaires. Teachers who requested another research packet were mailed one. After a similar waiting period, a third mailing of research packets containing a slightly altered cover letter was mailed to remaining non-respondents (Dillman, 1978; Tuckman, 1999).

The final rate of return—deemed to be acceptable (Tuckman)—was 77% (49 of 64) for the cooperating teachers representing 55 cooperating student teaching centers. To address the possibility of nonresponse bias, teachers who responded more than one week after receipt of the first return were operationalized as "late respondents" (23) per recommendation of Lindner, Murphy, and Briers (2001). This procedure permitted a near 50-50 split of early and late responders thus improving the power of statistical comparison (Lindner et al.). Accordingly, independent samples *t*-tests were used to compare the two groups; no significant differences ($p < .05$) were detected for the variables of interest. However, caution is urged when attempting to generalize the study's findings beyond the responding sample. The *Statistical Package for the Social Sciences v. 11.0.* was used for data analysis. Research questions were analyzed descriptively with frequencies, percentages, means, and standard deviations; a ranking of the important elements was determined as well.

Findings

As shown in Table 1, cooperating teachers who participated in this study were mostly male; only three of the respondents were female. About two-thirds (33) of the teachers held only a Bachelor's degree; the remainder had earned a Master's degree. One-fourth (12) of the cooperating teachers held teaching certification(s) in other areas. Six-in-ten respondents (30) had 16 or more years of experience as an agricultural education teacher.

Regarding selected characteristics of cooperating student teaching centers, 44 of the centers reported campus enrollments of 618 or fewer students; the remainder were larger schools (Table 2). A slight majority of centers (26) had two or more classrooms in

their agricultural education departments. The most common laboratory facility was for teaching agricultural mechanics (46). Slightly more than one-half (27) of the cooperating centers had a greenhouse or some other facility for teaching horticulture. A similar number of schools (26) had a project center/feeding facility to support students' livestock SAEs. About one-in-four centers (14) had a land laboratory but very few (2) had an aquaculture facility (Table 2).

Table 1. *Selected Characteristics of Cooperating Teachers (N = 47[a])*

Characteristics	Frequency	Percentage
Gender		
Male	44	90
Female	3	6
Highest Degree Held		
Bachelor's	33	67
Master's	14	29
Teaching Certificate(s) Held in Other Areas[b]		
No other teacher certification	29	59
Yes, in general science	7	14
Yes, in life-earth science	1	2
Yes, in fields other than those above	4	8
Interested in a Graduate Degree		
Definitely not	9	18
Probably not	16	33
Unsure	5	10
Probably yes	14	29
Definitely yes	3	6
Years Taught Agricultural Education		
3 - 5 years	3	6
6 - 10 years	8	16
11 - 15 years	6	12
16 or more years	30	61

Note. [a]Two respondents did not provide demographic data about themselves. [b]Six respondents did not answer this question.

Table 2. *Selected Characteristics of Cooperating Student Teaching Centers (N = 47[a])*

Characteristics	Frequency	Percentage
Size of School		
< 132 students	10	20
132 - 363 students	20	41
365 - 618 students	14	29
659 - 1229 students	1	2
1275 - 4279 students	2	4
Number of Agricultural Education Classrooms		
1	20	41
2	18	37
3	8	16
Ag Mech Laboratory (Yes)	46	94
Greenhouse (Yes)	21	43
Other Hort. Facility (Yes)	6	12
Aquaculture Facility (Yes)	2	4
Land Laboratory (Yes)	14	29
Project Center/Feeding Facility (Yes)	26	53

Note. [a]Three respondents did not provide data about their schools.

Cooperating teachers' mean ratings of 34 "important elements" of the student teaching experience are shown in Table 3. Teachers rated elements (items) of the student teaching experience on level of importance ("5" = "High Importance" . . . "1" = "No Importance") via a mail questionnaire; all but one of the 34 items were perceived to have either "much" or "high importance" ($M > 4.00$) (Table 3). The overall mean was 4.49 or midway between "much" and "high importance."

The highest rated element was "a well rounded program emphasizing instruction, SAEs, and youth leadership activities" ($M = 4.92$; $SD = .34$). "A cooperating teacher who has a positive attitude" was the second highest rated element ($M = 4.90$; $SD = .31$), while the element "a cooperating teacher who is a 'good' role model" was rated third ($M = 4.88$; $SD = .39$). Three elements belonging to the core area "Cooperating Teacher-Student Teacher Relationships" were rated fourth, fifth, and sixth in importance; the items were separated by .01, respectively ($M = 4.86$; 4.85; 4.84) (Table 3). "Recognized integrity of the cooperating teacher and program" ($M = 4.73$; $SD = .57$) was rated the seventh most important element. In eighth place was the element "a discipline management plan is used in a structured environment" ($M = 4.69$; $SD = .55$). And, the element "discipline policies that are in place and enforced" ($M = 4.67$; $SD = .52$) tied for ninth with "a cooperating teacher who provides frequent evaluations and feedback to the student teacher" ($M = 4.67$; $SD = .56$). Of the remaining elements, 17 had mean importance ratings ranging from 4.63 to 4.27, while seven items had mean rating scores approaching "much importance" ($M < 4.25$). Only one of these elements was rated below "much importance": "all students meeting state SAE requirements, with accurate record books" ($M = 3.90$; $SD = .71$).

The 34 elements were grouped conceptually into five "core" areas, and a "composite" mean was computed for each area (Table 3). The core area "Cooperating Teacher-Student Teacher Relationships" (9 elements) accounted for seven of the ten highest rated elements. Accordingly, this core area had the highest composite mean (4.71). "Classroom and Laboratory Instruction" (5 elements) was second highest (*M* = 4.55), and the core area "School and Community Relationships" (9 elements) had the next highest composite mean (*M* = 4.39). The core areas "Supervised Agricultural Experience Programs" (4 elements) and "Student Leadership Development (FFA Activities)" (7 elements) had the second lowest and lowest composite means (4.35; 4.32), respectively.

Table 3. *Cooperating Teachers' Perceptions of the Important Elements of the Student Teaching Experience (N = 49)*

Elements[a]	M[b]	SD	Ranking	
Classroom and Laboratory Instruction				
Daily (systematic) classroom and/or laboratory Instruction	4.63	.61	11	
A discipline management plan is used in a structured environment	4.69	.55	8	
Current technology used in instruction	4.27	.73	25	
Creative teaching methods as a basis for daily instruction, e.g., use of multimedia and varied teaching techniques	4.22	.69	27	
A well-rounded program emphasizing instruction, SAEs, and youth leadership activities	4.92	.34	1	
Composite Mean[c]				4.55
Supervised Agricultural Experience Programs				
All students meeting state SAE requirements, with accurate record books	3.90	.71	34	
Diversity within the students' SAEs	4.00	.74	33	
Project supervision and an explanation of this commitment to the student teacher	4.55	.58	14	
Student participation in advanced awards and degrees on district, state, and national levels	4.37	.73	20	
Composite Mean[c]				4.35
Student Leadership Development (FFA Activities)				
Strong classroom instruction in student leadership development	4.49	.55	15	
These activities as essential for a balanced program	4.49	.65	16	
A history of successful participation	4.06	.80	32	
Cooperating teachers who are familiar with current rules for participation in events (e.g., CDEs)	4.33	.69	22	

(table continues)

Elements[a]	M[b]	SD	Ranking	
Cooperating teachers who delegate the training of at least one team to the student teacher	4.27	.73	26	
Resources available to train a competitive team	4.41	.73	19	
Opportunities for the student teacher to judge or monitor a district or state CDE	4.22	.77	28	
Composite Mean[c]				4.32
School and Community Relationships				
Recognized integrity of the cooperating teacher	4.73	.57	7	
Departmental support organization(s) (e.g. , advisory committees, booster clubs, and Alumni)	4.33	.66	21	
A cooperating teacher who supports other school activities (e.g., athletic events)	4.12	.75	31	
A cooperating teacher who supports activities in the community (e.g., service organizations)	4.57	.58	12	
A spirit of professional cooperation among fellow teachers	4.57	.61	13	
Use of local media	4.27	.61	24	
School administrators who are involved in program activities	4.18	.70	29	
Community service projects	4.33	.69	23	
Availability of facilities (e.g., computer lab, shops, horticultural lab, school farm)	4.41	.67	18	
Composite Mean[c]				4.39
Cooperating Teacher-Student Teacher Relationships				
A cooperating teacher who is willing to be a mentor	4.85	.41	5	
A student teacher who is willing to be mentored by the cooperating teacher	4.86	.41	4	
A cooperating teacher who has a positive attitude	4.90	.31	2	
A cooperating teacher who is a "good" role model	4.88	.39	3	
A cooperating teacher who communicates clear expectations to the student teacher (e.g., role in classroom and calendar of events)	4.84	.43	6	
A cooperating teacher who provides frequent evaluations and feedback to the student teacher	4.67	.56	10	
Discipline policies that are in place and enforced	4.67	.52	9	
"Reinforcement" techniques in teaching (e.g., pace, reteaching, retesting, and accommodation of various learning styles)	4.49	.65	17	
Assistance in job placement	4.17	.75	30	
Composite Mean[c]				4.71
Overall Mean				4.49

Note. [a]Important elements were derived from an earlier study (Edwards & Briers, 2001). Items were modified slightly to reflect Oklahoma secondary agricultural education.
[b]5 = High Importance . . . 1 = No Importance. [c]Composite mean of elements for that core area.

Conclusions, Recommendations, and Implications/Discussion

Instructors selected by Oklahoma State University to serve as cooperating teachers in agricultural education were primarily males who were experienced teachers. Less than one-third of the respondents held a master's degree. Most cooperating teachers were employed in schools with moderate to small enrollments. Centers included classrooms dedicated to agricultural education and, in most cases, laboratories for teaching agricultural mechanics. Facilities to support other parts of the agricultural education curriculum were less common.

Respondents rated 33 of 34 elements of the student teaching experience as having "much importance" or greater ($M > 4.00$). As a core area, respondents held greatest importance for elements of "cooperating teacher-student relationships," even more so than "classroom and laboratory instruction," which was rated second. The element "a well-rounded program emphasizing instruction, SAEs, and youth leadership activities" received the highest rating overall. Teachers' perceptions about selected aspects of students' SAEs ranked lowest (Table 3).

Cooperating teachers' recognition of importance of the cooperating teacher-student relationship supported the position of Martin and Yoder (1985). Further, because teachers stressed selected elements of this core area, i.e., "positive attitude" and being a "'good' role model" were the second and third highest ranked items, earlier work by Byler and Byler (1984) and Deeds and Barrick (1986) was also supported. However, contrary to Edwards and Briers (2001), who found that Texas cooperating teachers held the core areas "classroom and laboratory instruction" and "cooperating teacher-student relationship" to be equal in importance, Oklahoma teachers perceived the latter to be the most important core area of the student teaching experience.

Recommendations for Future Practice

1) Albeit the current pool of potential female cooperators in Oklahoma is small, teacher educators should strive to identify and develop more centers staffed by female agricultural education teachers for the purpose of future student teacher placements.

2) Teacher educators should identify and use cooperating centers for student teacher placement that offer facilities supporting the teaching of a diverse agricultural education curriculum, including horticulture, aquaculture, animal science, and environmental science. Cooperating centers that offer only one or two laboratory experiences should be encouraged to diversify.

3) Teacher educators should continue to encourage current and future cooperating teachers to pursue graduate education (e.g., a master's degree) supporting their role as a cooperating teacher and as an agricultural education teacher. Teacher education faculty in agricultural education should continue to offer graduate course work in residence and at a distance to support the professional growth of this audience.

Recommendations for Future Research

1) Student teachers should be queried about their perceptions of important elements of the student teaching experience (Edwards & Briers, 2001; Harlin et al., 2002; Roberts & Dyer, 2004). Then, findings compared to cooperating teachers' perceptions in an attempt to better understand different as well as similar perceptions held by these two key stakeholder groups. Other significant groups could be included as well, e.g., members of the Oklahoma state staff for agricultural education and selected teacher educators. Areas of disagreement may generate additional research questions about important elements of the student teaching experience.

2) More research should be conducted to determine why cooperating teachers perceived that the cooperating teacher-student teacher relationship was the most important core area even more so than classroom and laboratory instruction. A deeper understanding of cooperating teachers' rationale for this perception may better inform teacher educators who are charged with preparing preservice students for the student teaching experience. Qualitative methodologies, e.g., focus groups and semi-structured interviews, may be effective tools for that purpose.

3) The finding that the two lowest rated important elements were drawn from the same core area—"Supervised Agricultural Experience Programs"—warrants further study, especially as it relates to how cooperating teachers assist students in meeting state SAE requirements, importance of accurate record books in that process, and their views about diversification of students' SAE opportunities (Baggett-Harlin & Weeks, 2000).

Implications/Discussion

This inquiry is the first systematic study of cooperating teachers' perceptions of the agricultural education student teaching experience in Oklahoma in more than three decades (Holley, 1972). It shed valuable light on cooperating teachers' perceptions of important elements of the student teaching experience (Table 3). The finding that teachers rated a comprehensive program of agricultural education, i.e., one "emphasizing instruction, SAEs, and youth leadership activities" as the most important element of the student teaching experience was encouraging.

However, further analysis of data revealed significant variability among cooperating teachers' perceptions about the role of instruction, especially as it related to the use of instructional technology and creative teaching methods; these elements were ranked 25 and 27, respectively. What is more, because the reliability estimate for the core area in which these items were nested was low ($\alpha = .47$) leads one to question how respondents operationalized them in the context of classroom and laboratory instruction. (Findings by Edwards and Briers in 2001 with Texas cooperators using the same instrument revealed a similar lack of internal consistency for this construct.) Accordingly, cooperating teachers should be probed further about the role of these

behaviors and their related ability to provide effective mentoring. Moreover, it appears that a reconfiguring of the study's instrument is in order to more accurately surface cooperating teachers' perceptions of classroom and laboratory instruction as well as to describe the importance of instructional technology and creative teaching behaviors.

Baggett-Harlin and Weeks (2000) reported inconsistencies among Oklahoma agricultural education programs regarding level of student SAE participation as well as completion of SAE record books. Other researchers (Dyer & Osborne, 1995) have noted serious challenges and deficits related to implementing SAEs and some have called for substantial reconfiguring of how SAEs are operationalized (Baggett-Harlin & Weeks; Camp, Fallon, & Clarke, 1999; Retallick, 2003) in agricultural education. Although viewed as important, this inquiry found that cooperating teachers perceived selected aspects of students' SAEs were the least important elements of the student teaching experience. This may be additional evidence that the "profession's" view of SAE and its role in today's agricultural education model (Retallick) is in a "state of flux," conceptually and, perhaps, philosophically. Accordingly, teacher educators should provide professional development opportunities to assist cooperating teachers in reconfiguring and expanding their views regarding SAEs per recommendations of Camp et al., Dyer and Osborne, Retallick, and others.

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