

IMPORTANT ELEMENTS OF THE STUDENT TEACHING EXPERIENCE IN AGRICULTURAL EDUCATION: A COMPARISON OF COOPERATING TEACHERS' AND STUDENT TEACHERS' PERCEPTIONS

R. Brent Young, North Dakota State University

M. Craig Edwards, Oklahoma State University

Abstract

This study compared cooperating teachers' and student teachers' perceptions of important elements of the student teaching experience and identified selected characteristics of cooperating centers. Forty-nine cooperating teachers and 25 student teachers provided data. Questionnaire items were divided into five "core" areas based on a review of literature. Respondents rated the elements using a scale of "5" = "High Importance" to "1" = "No Importance." Return rates were 77% for cooperating teachers and 100% for student teachers. Reliability estimates for the five core areas ranged from .47 to .87 for cooperating teachers and from .60 to .84 for student teachers. The overall importance scale of 34 items yielded estimates of .93 and .91, respectively. Both groups rated 33 of the 34 elements as "important." No significant differences ($p < .05$) between groups were detected by core area or overall. The "Cooperating Teacher-Student Teacher Relationship" was rated the most important core area of the student teaching experience by both groups. Teacher educators should make preservice teachers aware of the important elements of the student teaching experience that were identified by this study. In particular, beginning cooperators should receive professional development toward that end. The importance of the mentor-mentee relationship should be emphasized. In addition, the finding that both groups rated selected elements that comprised the core area "Supervised Agricultural Experience Programs" as less important warrants further inquiry and discussion in the profession.

Introduction and Conceptual Framework

Schumann (1969) argued that the most important component of the preservice professional development of an aspiring agriculture teacher is 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). Other researchers (Barnes & Camp, 2002; Bunting, 1988; Covington & Dobbins, 2004; Deeds, 1993; Deeds, Arrington, & Flowers, 1988; Garton & Cano, 1994; Martin & Yoder, 1985; Roberts, 2005; Roberts & Dyer, 2004) have supported that assertion to varying degrees.

What is more, DeMoulin (1993) stated that students should demonstrate a positive change in their attitudes about teaching and “come away from the student-teaching experience with a positive attitude toward their chosen profession” (p. 160). In support, Deeds and Barrick (1986) concluded that the perceptions of preservice teachers regarding the quality of program in which their early field-based experiences transpired were related to the extent that their attitude was positive. Byler and Byler (1984) analyzed student teacher morale before and after student teaching and found “a significant relationship after the student teaching experience between student teachers’ morale and the morale of their cooperating teachers” (p. 27). Clearly, the student teaching experience holds great potential for impacting student teachers positively and setting them on a course of professional induction that is rewarding and purposeful.

Martin and Yoder (1985) theorized a successful student teaching experience as one in which a “team approach” (p. 19) defined the relationship between cooperating teacher and student teacher. They contended that success of the relationship depended “upon the general supervisory climate in the department and on the educational leadership abilities of the cooperating teacher” (p. 21). Further, Korthagen and Kessels (1999) stated that cooperating student teaching centers “must be able to offer a sound balance between safety and challenge” (p. 14), and that the needs of student teachers and the needs of schools must be considered. Henry and Beasley (1996) also investigated the unique and essential role of supervising (cooperating) teachers and centers in facilitating the professional induction of preservice teachers; they supported the aforementioned positions. Barnes and Camp (2002) also agreed as to the important role of cooperating centers.

Concerning instructional practices, DeMoulin (1993) argued that it was the cooperating teacher’s role to encourage student teachers to use innovative teaching practices and to support their creativity. Moreover, Garton and Cano (1994) asserted that cooperating teachers should be selected “who model the desired teaching behaviors expected of student teachers” (p. 213).

Ethell and McMeniman (2000) concluded that “studies in teaching have generally substantiated other expert/novice research,” i.e., “expert teachers have a larger knowledge base from which to draw; they organize knowledge more efficiently in complex interconnected schemas and utilize it more effectively” (p. 88). However, the procedural knowledge undergirding behaviors of expert practitioners, including teachers, is often too “tacit” and lacks sufficient transparency to be meaningful to a novice (Ethell & McMeniman). Moreover, “gaining access to the knowledge and cognitions of expert teachers has to date proved problematic for researchers and teacher educators” (Ethell & McMeniman, p. 99). So,

understanding better the beliefs of cooperating agriculture teachers about important elements of what should be a salient and perhaps even career-defining experience, i.e., student teaching, and comparing their perceptions to those held by student teachers could improve the ability of teacher educators to plan and manage the student teaching experience in agricultural education.

To this end, researchers (Harlin, Edwards, & Briers, 2002; Young & Edwards, 2005) have suggested that the perceptions of these two stakeholder groups be compared to determine if significant differences exist. So, were the perceptions of these two groups—cooperating teachers and student teachers—similar or different concerning selected important elements of the student teaching experience in agricultural education?

Purposes and Research Questions

The efficacy of an individual's student teaching experience may hinge on the attitudes and perceptions of two key actors: cooperating teacher and student teacher. The primary purpose of this descriptive study was to compare cooperating teachers' and student teachers' perceptions of important elements of the student teaching experience in agricultural education. A secondary purpose was to describe selected characteristics of cooperating student teaching centers. The following research questions guided this study:

- 1) What were cooperating teachers' perceptions of important elements of the student teaching experience?
- 2) What were student teachers' perceptions of important elements of the student teaching experience after a 12-week field experience?
- 3) Did significant differences ($p < .05$) exist between cooperating teachers' and student teachers' perceptions of important elements of the student teaching experience?
- 4) What were selected characteristics of the schools that served as cooperating student teaching centers?

Methods and Procedures

This descriptive study sought to compare student teachers' and cooperating teachers' perceptions of important elements of the student teaching experience, and to identify selected characteristics of cooperating centers. The study's student teacher sampling frame ($n = 25$) included all student teachers from the Department of Agricultural Education, Communications and 4-H Youth Development, Oklahoma State University during the spring 2004 semester; thus, it was a purposeful sample. The cooperating teacher 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; so, it was also a purposeful sample.

The data collection instrument was developed by Harlin et al. (2002) for use with agricultural education student teachers in Texas. Earlier researchers (Edwards & Briers, 2001) used cooperating teacher focus groups to identify 34 elements of the student teaching experience per five “core” areas derived from a review of literature (Edwards & Briers, 1999; Larke, Norris, & Briers, 1992; Martin & Yoder, 1985). Items were validated further via a postal mail questionnaire follow-up procedure (Edwards & Briers, 2001). Selected questionnaire items were modified slightly to “fit” characteristics of cooperating student teaching centers in Oklahoma but the elements, i.e., items rated for importance, remained the same (Harlin et al.).

Part one of the instrument was divided into five “core” areas of the student teaching experience and included 34 “important elements” (α = student teachers’ and cooperating teachers’ estimates, respectively): “Classroom and Laboratory Instruction” (5 items; α = .68; .47), “Supervised Agricultural Experience Programs (SAEPs)” (4 items; α = .60; .61), “Student Leadership Development (FFA)” (7 items; α = .82; .85), “School and Community Relationships” (9 items; α = .75; .83), and “Cooperating Teacher-Student Teacher Relationships” (9 items; α = .84; .87). Respondents 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 .60 to .84 for student teachers and .47 to .87 for cooperators; the overall importance scale yielded estimates of .91 and .93, respectively. Selected characteristics of student teaching centers were identified per the cooperating teachers’ questionnaire.

Student teachers completed the instrument at conclusion of the four-week on-campus portion of student teaching and again at the end of a 12-week off-campus field experience. Data for this study was derived from the instrument completed at the conclusion of the 12-week off-campus field experience. All student teachers from the Department of Agricultural Education, Communications and 4-H Youth Development, Oklahoma State University who student taught during the spring 2004 semester participated in the study; so, the rate of return for student teachers was 100%.

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 45 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 samples.

The *Statistical Package for the Social Sciences v. 13.0.* was used for data analysis. Research questions were analyzed descriptively with frequencies, percentages, means, and standard deviations; a ranking of important elements by core area was determined as well. Independent samples *t*-tests ($p < .05$) were calculated to analyze research question three.

Findings

As shown in Table 1, 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 1

Selected Characteristics of Student Teaching Centers as Reported by Cooperating Teachers (N = 47^a)

Characteristics	<i>f</i>	%
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. ^aTwo cooperators did not provide data about their schools.

Cooperating teachers' and student teachers' ratings of 34 "important elements" of the student teaching experience are shown in Table 2. Cooperators and student teachers rated elements (items) of the student teaching experience on level of importance ("5" = "High Importance" . . .

“1” = “No Importance”). The overall means were 4.45 and 4.49, respectively, or approximately midway between “much” and “high importance” ($M \geq 4.00$).

The 34 elements were grouped conceptually into five “core” areas and a composite mean was calculated for each area (Table 2). The core area “Cooperating Teacher-Student Teacher Relationships” was rated the highest core area by both cooperators and student teachers ($M = 4.70$ and $M = 4.84$, respectively). Ratings for the remaining core areas resulted in “Classroom and Laboratory Instruction” ($M = 4.54$; $M = 4.59$) ranking second. Cooperating teachers’ ratings resulted in “School and Community Relationships” ranking third ($M = 4.39$); however, “Student Leadership Development (FFA Activities)” ($M = 4.41$) held the third place ranking for student teachers. The pattern was then reversed, i.e., cooperators’ ratings ranked the core area “Student Leadership Development (FFA Activities)” ($M = 4.32$) fourth, and student teachers’ ratings ranked “School and Community Relationships” ($M = 4.40$) as the fourth most important core area. The core area “Supervised Agricultural Experience Programs” had the lowest composite means ($M = 4.20$; $M = 4.23$) and rankings for both groups.

The highest rated individual element according to cooperating teachers’ 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 ($M = 4.90$; $SD = .31$), and the element “a cooperating teacher who is a ‘good’ role model” was rated third ($M = 4.88$; $SD = .39$). Only one of the 34 elements was rated below “much importance”: “all students meeting state SAE requirements, with accurate record books” ($M = 3.90$; $SD = .71$).

Student teachers’ ratings started with “a cooperating teacher who communicates clear expectations to the student teacher” ($M = 4.92$; $SD = .28$). “A student teacher who is willing to be mentored by the cooperating teacher,” “a cooperating teacher who is a ‘good’ role model” and “a cooperating teacher who provides frequent evaluations and feedback to the student teacher” all tied for second ($M = 4.88$; $SD = .33$). “A well-rounded program emphasizing instruction, SAE’s, and youth leadership activities” ($M = 4.88$; $SD = .44$) was rated the fifth most important element. Four of the five highest rated elements were derived from the core area “Cooperating Teacher-Student Teacher Relationships.” Similar to cooperating teachers, only one of the elements was rated below “much importance”: “all students meeting state SAE requirements, with accurate record books” ($M = 3.88$; $SD = .60$). Independent samples *t*-tests revealed no significant differences ($p < .05$) between composite means of the five core area or between the overall means.

Table 2

Comparison of Means and Core Area Rankings of Cooperating Teachers' and Student Teachers' Perceptions of Important Elements of the Student Teaching Experience

<i>Elements^a</i>	<i>Coop. Tchr.</i>		<i>Stud. Tchr.</i>		<i>t</i>
	<i>M^b</i>	<i>SD</i>	<i>M^b</i>	<i>SD</i>	
<u>Classroom and Laboratory Instruction</u>					
Daily (systematic) classroom and/or laboratory instruction	4.63	.61	4.72	.54	
A discipline management plan is used in a structured environment	4.69	.55	4.76	.52	
Current technology used in instruction	4.27	.73	4.12	.88	
Creative teaching methods as a basis for daily instruction, e.g., use of multimedia and varied teaching techniques	4.22	.69	4.48	.65	
A well-rounded program emphasizing instruction, SAE's, and youth leadership activities	4.92	.34	4.88	.44	
Composite Mean Ranking	4.54	.34	4.59	.46	.460
	2		2		
<u>Supervised Agricultural Experience Programs</u>					
All students meeting state SAE requirements, with accurate record books	3.90	.71	4.00	.78	
Diversity within the students' SAEs	4.00	.74	3.88	.60	
Project supervision and an explanation of this commitment to the student teacher	4.55	.58	4.60	.50	
Student participation in advanced awards and degrees on district, state, and national levels	4.37	.73	4.44	.71	
Composite Mean Ranking	4.20	.48	4.23	.45	.198
	5		5		
<u>Student Leadership Development (FFA Activities)</u>					
Strong classroom instruction in student leadership development	4.49	.55	4.40	.76	
These activities as essential for a balanced program	4.49	.65	4.44	.65	
A history of successful participation	4.06	.80	4.12	.83	
Cooperating teachers who are familiar with current rules for participation in events (e.g., CDEs)	4.33	.69	4.52	.59	
Cooperating teachers who delegate the training of at least one team to the student teacher	4.27	.73	4.68	.56	
Resources available to train a competitive team	4.41	.73	4.56	.65	
Opportunities for the student teacher to judge or monitor a district or state CDE	4.22	.77	4.12	.67	
Composite Mean Ranking	4.32	.51	4.41	.48	.677
	4		3		

(table continues)

<i>Elements^a</i>	<i>Coop. Tchr.</i>		<i>Stud. Tchr.</i>		<i>t</i>
	<i>M^b</i>	<i>SD</i>	<i>M^b</i>	<i>SD</i>	
<u>School and Community Relationships</u>					
Recognized integrity of the cooperating teacher	4.73	.57	4.64	.49	
Departmental support organization(s) (e.g., advisory committees, booster clubs, and Alumni)	4.33	.66	4.48	.65	
A cooperating teacher who supports other school activities (e.g., athletic events)	4.12	.75	4.08	.83	
A cooperating teacher who supports activities in the community (e.g., service organizations)	4.57	.58	4.24	.78	
A spirit of professional cooperation among fellow Teachers	4.57	.61	4.52	.51	
Use of local media	4.27	.61	4.29	.75	
School administrators who are involved in program activities	4.18	.70	4.36	.75	
Community service projects	4.33	.69	4.36	.64	
Availability of facilities (e.g., computer lab, shops, horticultural lab, school farm)	4.41	.67	4.64	.64	
Composite Mean	4.39	.42	4.40	.49	.071
Ranking	3		4		
<u>Cooperating Teacher-Student Teacher Relationships</u>					
A cooperating teacher who is willing to be a mentor	4.85	.41	4.84	.37	
A student teacher who is willing to be mentored by the cooperating teacher	4.86	.41	4.88	.33	
A cooperating teacher who has a positive attitude	4.90	.31	4.84	.37	
A cooperating teacher who is a “good” role model	4.88	.39	4.88	.33	
A cooperating teacher who communicates clear expectations to the student teacher (e.g., role in classroom and calendar of events)	4.84	.43	4.92	.28	
A cooperating teacher who provides frequent evaluations and feedback to the student teacher	4.67	.56	4.88	.33	
Discipline policies that are in place and enforced	4.67	.52	4.80	.41	
“Reinforcement” techniques in teaching (e.g., pace, reteaching, retesting, and accommodation of various learning styles)	4.49	.65	4.76	.44	
Assistance in job placement	4.17	.65	4.76	.52	
Composite Mean	4.70	.35	4.84	.30	1.750
Ranking	1		1		
Overall Mean	4.45	.34	4.49	.35	.386

Note. ^aImportant elements were derived from an earlier study (Harlin et al., 2002) and modified slightly to reflect the “language” of Oklahoma agricultural educators. ^b5 = High Importance . . . 1 = No Importance

Conclusions

Cooperating student teaching centers examined in this study tended to be smaller high schools; most had enrollments of less than 619 students. A majority of the agricultural education departments had two or more classrooms; nearly all had an agricultural mechanics facility, and many had other learning laboratories such as greenhouses and project centers.

Cooperating teachers and student teachers rated 33 of the 34 elements of the student teaching experience as “important” or higher ($M \geq 4.00$). Both groups rated “Cooperating Teacher-Student Teacher Relationships” as the most important core area of the student teaching experience. What is more, the order of ranking for all five core areas differed only slightly. The core area “Supervised Agricultural Experience Programs” was rated lowest by both groups. No significant differences ($p < .05$) existed between the two groups regarding “level of importance” by core area or overall (Table 2).

Recommendations

Prior to student teaching, teacher educators should make preservice teachers aware of the important elements of the student teaching experience that were identified by cooperating teachers and by student teachers who had completed a student teaching experience. To this end, Edwards and Briers (2001) contended that “these elements could serve as ‘talking points’ (i.e., points of reference) for [the] student teacher, when defining and ‘negotiating’ duties, roles, and responsibilities with their cooperating teacher at the onset of student teaching” (p. 40). Bunting (1988) supported this position when she suggested that the cooperating teacher was a significant “socializing influence” (p. 46) for an apprentice teacher during the student teaching experience. Other researchers (Byler & Byler, 1984; Deeds & Barrick, 1986) have supported Bunting’s premise as it relates to the attitudes and morale of preservice students in agricultural education vis-à-vis their field experiences.

During inservice professional development for cooperating teachers, teacher educators should reinforce the importance of “Cooperating Teacher-Student Teacher Relationships” as perceived by both groups. In particular, first-time cooperators should receive professional development supporting their ability to communicate effectively with student teachers and serve as effective and caring mentors (Young & Edwards, 2005).

Consistent with findings and calls made by other researchers (e.g., Camp, Fallon, & Clarke, 1999; Dyer & Osborne, 1995; Harlin et al., 2002; Retallick, 2003), how agricultural education teachers and student teachers conceptualize and operationalize students’ supervised agricultural experiences, i.e., as an integral part of the comprehensive secondary agricultural education model, may be a shifting paradigm. Accordingly, the perceptions of these two groups and those held by agricultural education teacher educators and state staff personnel in regards to planning, implementing, and assessing supervised agricultural experiences warrants further inquiry as well as a sustained dialogue involving all stakeholders.

Both groups rated 33 of the 34 elements of the student teaching experience “important” ($M = \geq 4.00$). However, current practices in student teaching should be examined further to determine if other aspects exist that are “unimportant” or perhaps experiences that may be better

served through early field-based programming (Deeds & Barrick, 1986; Harlin et al., 2002) prior to the student teaching semester.

Discussion and Implications

When the perceptions of Oklahoma cooperating teachers regarding important elements of the student teaching experience in agricultural education were reported in 2005 (Young & Edwards, 2005), it had been more than 30 years since a systematic inquiry had occurred. Collecting that data combined with gathering student teachers' perceptions about the same phenomenon made the comparison described in this manuscript possible. Accordingly, it was interesting to note how similar the groups' rankings were for the five core areas described (Table 2). A mere one-hundredth of a point prevented the groups' core rankings from being identical.

In contrast, using a very similar instrument, Edwards, Harlin, and Briers (2003) revealed some significant differences between the perceptions held by cooperators and student teachers in Texas, i.e., "Supervised Agricultural Experience Programs" and "Classroom and Laboratory Instruction" in particular, as well as between the groups' overall mean ratings. The findings from these two states may provide some support for the position that "philosophical perspectives" can be imparted or "taught." That is, the likelihood that a cooperator who participated in the Oklahoma study graduated from an institution other than the university from which the student teachers matriculated is quite low. However, in the case of the Texas participants a number of different institutions were likely represented by the cooperating teacher participants. What is more, the incomparability of state staff personnel (i.e., manpower-wise) between the two states and its impact on the "consistent" delivery of message, program philosophy, and adherence to prescribed accountability measures favors Oklahoma significantly.

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