

IMPACT OF A PROFESSIONAL DEVELOPMENT WORKSHOP ON THE TEACHING OF A SECONDARY COURSE IN AGRICULTURAL COMMUNICATIONS AND LEADERSHIP

William G. Weeks
Oklahoma State University

Abstract

This study examined the impact of a secondary agricultural education workshop on the subject matter content of a new course in agricultural communications and leadership. About one-half of the teachers attended a summer workshop designed to help them with content and delivery of the course. Student enrolled in the course tended to be upperclassmen. Males and females were more equally represented in the population as compared to the enrollment in other agricultural education classes throughout the state. Findings indicate that teachers who attended the workshop scheduled more days for teaching communication theory. Teachers who did not attend the workshop tended to devote more days to teaching public speaking and parliamentary procedure. Results indicate that professional development workshops can have a significant impact on the time teachers devote to specific content areas and the selection of content in a secondary agricultural education course.

Introduction/Theoretical Framework

When the National Research Council's Committee on Secondary Agricultural Education (1988) announced its findings; debate erupted on the impact of the multitude of recommendations aimed at transforming Agricultural Education. Perhaps no recommendation has had a more widespread impact than this: "Major revisions are needed within vocational agriculture. The relevance and scope of curriculum . . . must be broadened." (p. 4). Specifically, the report called for a more flexible curriculum, saying the curriculum had not kept up with changes in modern agriculture.

While curricular changes were already beginning in some states, the "green-book" became the catalyst for many states and individual teachers to re-examine their course offerings and instructional content. Specialized courses in natural resources, principles of technology, and aquaculture quickly replaced Vocational Agriculture I - IV and in some cases specialized courses were further condensed to a single semester (Norris & Briers, 1988). Some early curricular changes were in title only, but over time, substantive changes have been major in what is being taught in secondary agricultural education.

Terry (1996) pointed out that agricultural communications is an important part of agricultural education's mission because it stresses the "about" agriculture segment of the profession. Terry's research revealed that agricultural communications graduates at the collegiate level should have competence in advertising, photography, public relations, public speaking, and telecommunications as part of their communications component. The National FFA Organization has also embraced agricultural communications, adding it to its growing list of proficiency awards, this year Agricultural Communications was added as a Career Development Event (National FFA, 1998).

Although leadership education has been a mainstay and, for some, the reason for the student organization's existence, leadership education as a subject matter course is only recently gaining acceptance. Texas introduced a specialized semester course AGSCI 312 Personal Leadership Skill Development (Norris and Briers, 1988). Brown and Fritz (1994) found that leadership education courses at the post-secondary level as offered through the agricultural education discipline have been well received. The researchers determined that leadership courses are a product that enjoys substantial consumer satisfaction and meets a growing demand.

At a time when teachers are being asked to change the focus of their programs, many complain that they lack the experience and training to change. Teachers of agriculture continually want and need in-service education, particularly in technical subject matter (Barrick, Ladewig, and Hedges, 1983). Logically, this need is more pronounced when the teachers are asked to teach new subject matter or subject matter in which they have had little previous training. Moman (1998) found that professional development workshops with science and agriculture teachers were effective at increasing the collaboration between the two teacher groups.

Much of what we know about the efficiency of professional development programs in education is based on anecdotes and on reports from teachers, principal investigators, and program directors involved with the programs themselves (National Research Council, 1996). The teachers feel they enhanced their content knowledge and are more comfortable in using inquiry-based methods of instruction in their classrooms as a result of professional development. This kind of subjective information is important and useful, but the overwhelming majority of programs that were investigated by the National Research Council (1996) have no formal devices for determining effectiveness of programs by evaluating how students fared after their teachers participated in professional development programs.

Ultimately, an evaluation mechanism is needed to be designed in order to collect longitudinal data to measure effects of professional development programs for teachers on their students, including how they learn and make

decisions beyond high school. Acquiring such data will require tenacity to collect and analyze comparable data over periods of 5-10 years (National Research Council, 1996).

The National Research Council (1996) found a lack of overall program evaluations connecting teacher participation in professional development with improvement of teaching skills or students' performance. To determine the ultimate impact of a program, long-term evaluation is needed to keep track of program participants and how they embody new information and methods into their classroom activities.

The Oklahoma Department of Vocational and Technical Education's Division of Agricultural Education (1996) authorized seven new course offerings for the 1997-98 academic year. One of the courses was entitled Agricultural Communications/Leadership. Because this course offering was directly related to the Department's agricultural communications and agricultural education undergraduate majors, departmental faculty proposed two; two-day summer workshops for teachers considering teaching the course. The proposal was accepted for funding and in June 1997, Departmental faculty and staff sponsored workshops on Agricultural Communications/Leadership to a total of 45 teachers.

The workshop was split into four segments on communications-related topics and four segments on leadership-oriented topics. Communications topics included preparing newsletters, photography, video production, and writing press releases. Leadership segments included strategic planning, leadership styles, creative problem solving, and human motivation. Time was also devoted to planning for a secondary course and Internet resources. A packet of sample instructional materials from various commercial and public sources was given to each participant as well as a copy of the leadership textbook from Delmar Publishing Co.

On site evaluations by the participants were very positive. However, that assessment provided no insight to the impact the workshop had on how the participants went about teaching the course.

Purpose and Objectives

The purpose of this study was to determine the impact of a professional development workshop for agricultural education teachers and assess the instruction given in a new secondary agricultural education course. Specifically, the objectives were to:

1. Demographically describe students enrolled in the Agricultural Communications and Leadership course.
2. Describe the course content.
3. Compare the course content offered by teachers who attended the professional development workshop to the content offered by teachers who did not attend the workshop.
4. Describe FFA activities completed as a part of the course.
5. Describe curriculum resources used by teachers.

Methods and Procedures

As a final activity of each workshop, teachers participated in an activity aimed at developing the content of a secondary course. Using the nominal group technique (Ford & Nemiroff, 1975), workshop participants brainstormed and prioritized curriculum concepts for the course. The nominal group process is a series of five steps.

Step #1 - Pre-meeting details - Where groups are subdivided and the problem mutually agreed upon,

Step #2 - Silent generation of ideas - Group members silently and independently brainstorm on possible solutions to problem.

Step #3 - Round robin listing - Without discussion each group member presents his/her ideas to the group recorder until all items have been listed.

Step #4 - Discussion - Group recorder leads group discussion of recorded ideas for clarification, elaboration, and evaluation. No items are eliminated from the list.

Step #5 - Ranking - Without further discussion or interaction individual group members are asked to select the ten most important items on the list and rank them. The process may be repeated to further narrow the list.

Common problems that groups encounter include arriving at conclusions without considering all information, individual domination of the group, and variations of status among group members. Nominal group technique helps to circumvent those problems by allowing all ideas to be revealed (in writing) and having all minority opinions represented and tolerated. Results of the nominal group technique are shown in Table 1 with lower scores indicating a higher ranking.

The researcher used the results of the Nominal Group Technique to develop a list of nineteen curriculum areas that teachers might include in a course. The survey instrument asked teachers to record the days of instruction devoted to a particular concept area for the fall semester and the days they anticipated devoting time to that concept for the

spring 1998 semester. Demographic information on students enrolled in the course was sought. There were four open-ended questions concerning the teachers' experience with the new course. Faculty and staff who conducted the professional development workshop assisted in the content and design of the instrument. The instrument was piloted on a group of former secondary teachers and modifications were made to reflect possible block scheduling assignments.

Table 1.
Workshop Participants Ranking of Course Concepts Using Nominal Group Technique

Workshop #1	N=29	Workshop #2	N=16
Concept	Score	Concept	Score
Goal Setting	138	Mechanics of Public Speaking	49
Multimedia Communication	154	Citizenship	73
Advanced Public Speaking	174	Goal Setting	77
Professionalism	176	Self-Concept	80
Citizenship	192	Leadership Styles	85
Personal Development	192	Job Interviewing Skills	85
Leadership Activities	201	Letter Writing	86
Interview Skills	211	Time Management	89
Careers in Communications	221	Ethics	92
Photography	225	Decision Making	94
Group Discussions	228	Nonverbal Communications	94
Time Management	229	History of Communications	101
Agriculture Promotion	230	Internet Applications	104
Interaction w/ Com. Leader	233	Group Dynamics	105
Writing Skills	233	Resume Development	109
Motivation	235	Vocabulary Building	111
Parliamentary Procedure	247	Parliamentary Procedure	118
Research Techniques	250	Etiquette	123
FFA Stuff	250	Researching Techniques	123
Computer Applications	260	Photography	126
Portfolios	260	Advertising/Promotion	141
Letter Writing	261		
Creating Newsletters	264		
Telephone Skills	264		
Video Production	269		
Organizational Dynamics	271		

On November 1, 1997 the state Department of Vocational and Technical provided a list of 30 teachers who reported teaching the course entitled Agricultural Communications and Leadership for the 1997-98 academic year. These 30 teachers represented the population of the study. By October 1 of each year Vocational Teachers are required to report to the state agency the classes they are teaching. Cross-referencing the list with that of the summer workshop showed that about half of those teaching the course had not participated in the summer workshop.

Table 2.
Response Rate of Teachers

	Population	Respondents
Teachers offering Ag Com/Leadership Course who attended professional development workshop	13	9 (69%)
Teachers offering Ag Com/Leadership Course who did not attend professional development workshop	17	8 (47%)
Total	30	17 (57%)

The survey instrument was printed on 11" x 17" paper and folded to form a four-page booklet. Instruments were color-coded to indicate attendance at the summer workshop. The questionnaire was mailed in mid-January to the 30 teachers who had self-identified as teaching the course. By mid-February, twelve questionnaires had been returned and a second mailing was sent to those who had not responded. This mailing yielded two additional returns and on March 1 a third mailing was sent to the non-respondents which yielded an additional return for a total of 15 returned questionnaires. Response results can be seen in Table 2. A telephone follow up of three non-respondents

revealed that some instructors were not in fact teaching the Agricultural Communications and Leadership course. Reasons given were administrative changes, teacher change, and inadequate teacher preparation time.

Results/Findings

Objective one was to describe demographically the secondary students enrolled in the Agricultural Communications/Leadership course. Figure 1 illustrates the classification levels of students enrolled in the Agricultural Communications and Leadership course. The course was made up of mostly juniors and seniors (70%). Although Agriscience I is a prerequisite to all other Agricultural Education courses, six freshman were enrolled in the Agricultural Communications and Leadership course.

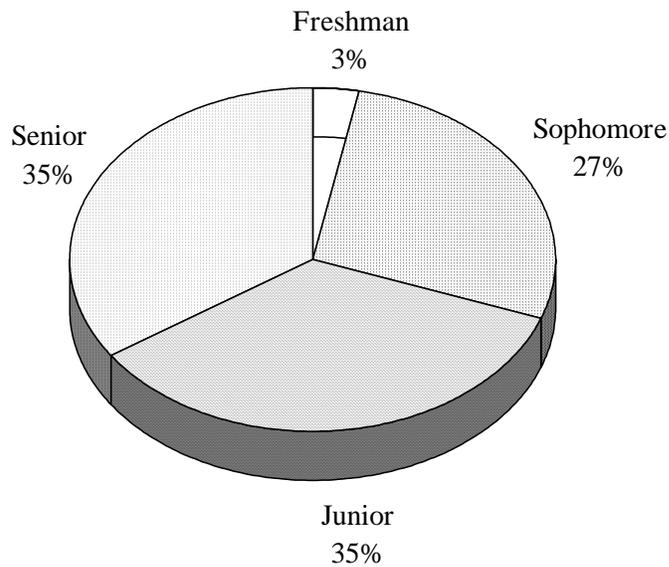


Figure 1. Students enrolled in Ag Com/Leadership by classification

Table 3 describes further demographic information based on gender, FFA leadership, and ethnicity. Male students made up a majority of the class, but enrollment in the Agricultural Communications and Leadership course was far more gender neutral than enrollment in all High School Agricultural Education Programs in the state. In terms of ethnicity, almost 80% of the students were White and the teacher described about 17% as being Native American. Enrollment by ethnicity was in line with the state averages. Two foreign exchange students were enrolled and categorized as "other".

All teachers reported FFA officers enrolled in the course with a range from three to seven. Although non-FFA officers outnumber FFA officers almost two to one, it should be noted that the mean FFA officers enrolled (4.35) is from a maximum of seven FFA officers. Mean class size (12.96) was slightly higher than mean class size for all high school agricultural education programs (12.30).

Table 3.
Demographics of Students Enrolled in Agricultural Communications/Leadership Course

Variable		N	Mean	%	State Avg.	Range	SD
Gender	Male	123	7.69	58%	72%	3 - 14	3.60
	Female	88	5.50	42%	28%	1 - 10	2.80
Ethnicity	White	175	10.35	80%	79%	6 - 18	3.48
	Native American	38	2.24	17%	17%	0 - 10	3.40
	Hispanic	2	.12	1%	2%	0 - 2	.33
	Asian-American	2	.12	1%	0%	0 - 2	.33
	African American	2	.12	1%	3%	0 - 2	.33
	Other	2	.12	1%	---	0 - 2	.33
FFA	Local FFA Officer	74	4.35	33%		3 - 7	1.41
	Non-FFA Officer	144	8.47	67%		2 - 20	5.44
Class Enrollment		218	12.82		12.30	6 - 24	5.38

Objective two was to describe the content of the Agricultural Communications and Leadership course. Teachers were asked to record the number of days that were spent on a topic in the fall semester and the number of days planned for instruction on the topic in the spring semester. Table 4 reveals that teachers devoted more days to parliamentary procedure and public speaking than other topics.

Table 4.
Days Spent Teaching Subject Area in Fall 1997 and Days Planned for Spring 1998

Subject Area	Teaching Days Fall		Days Planned Spring	
	Workshop	No Workshop	Workshop	No Workshop
Public Speaking	8.50	16.25	13.63	13.57
Newsletters	8.50	9.38	5.00	5.00
Photography	8.38	1.25	4.75	2.14
Parliamentary Procedure	6.50	8.75	6.25	14.43
Research Techniques	6.50	6.75	5.13	4.86
Motivation	5.00	5.25	2.88	1.71
Job Skills	5.00	3.38	6.13	18.57
Leadership Styles	4.88	3.13	1.75	3.00
Letter Writing	4.88	3.50	3.50	3.14
Advertising/Promotion	4.63	1.88	3.63	2.43
Internet Applications	4.63	2.00	7.50	0.71
Citizenship	3.88	3.75	1.63	3.86
Goal setting	3.25	7.00	2.75	2.14
Decision Making	3.25	1.25	1.25	2.14
Video Production	2.00	1.25	6.25	3.29
Time Management	1.63	2.25	2.75	3.57
Non-Verbal Comm.	1.25	1.13	2.75	1.43
Etiquette	0.75	3.00	6.13	1.71
Self Concept	0.63	2.50	4.88	2.00
Other	2.50	3.13	1.88	0.71

Objective three was to compare teachers who attended the professional development workshop to those who did not. Topics were clustered into the general areas of leadership, communications, Internet-related, public speaking, parliamentary procedure, and job skills. Research techniques were included with public speaking because it was believed that students were researching materials for speech material. Table 5 shows the topics as categorized. Topics identified as "other" included word-processing, college entrance requirements, and current events.

Table 5.
Subject Matter Areas of Communications and Leadership as Categorized

Categorization of Course content areas					
<u>Communications</u>	<u>Public Speaking</u>	<u>Leadership</u>	<u>Internet Applications</u>	<u>Parliamentary Procedure</u>	<u>Job Skills</u>
Advertising/ Promotion	Public Speaking	Decision Making	Internet Applications	Parliamentary Procedure	Resume Development
Nonverbal Communications	Research Techniques	Leadership Styles			Interview Skills
Video Production		Motivation			Etiquette
Photography		Self-Concept			
Letter Writing		Time Management			
Newsletters		Goal Setting			
		Citizenship			

Table 6 shows that teachers who attended the professional development workshop taught a significantly higher number of days on communications and Internet applications. Those teachers also taught a significantly fewer number of days on public speaking than did teachers who did not attend the workshop.

Table 6.
Days Spent (or Planned) Teaching Subject Area

Subject Area	Mean Teaching Days		
	<u>Workshop</u>	<u>No Workshop</u>	<u>Probability</u>
Communications Advertising/Promotion Letter Writing, Newsletters Nonverbal Communications, Photography, Video Production	27.44	17.93	.039*
Leadership Citizenship, Decision Making Goal Setting, Leadership Styles Motivation, Self-Concept Time Management	18.20	16.19	.374
Public Speaking Public Speaking Research Techniques	15.00	32.27	.012*
Job Skills Etiquette Interviewing skills	13.31	18.67	.209
Parliamentary Procedure	5.75	11.40	.086
Internet Applications	5.13	1.40	.006*

*p<.05

The fourth objective was to determine the FFA activities undertaken by the class. There seemed to be little variation between the activities listed for teachers who attended the professional development workshop and those who had not. Major points made by the respondents are summarized as follows.

Workshop Attendees

- Sponsored local leadership workshop, FFA committee chairs were in class
- Prepare FFA speeches, FFA photography contest
- Maintained chapter homepage, published chapter newsletter
- Sponsor chapter speech contest, class members participated in speech contest
- Planned FFA chapter banquet
- Prepared press releases for newspaper
- Produced video for banquet, edited county (livestock) show book

Workshop Nonattendees

- Prepared education booth for fair, prepared newspaper articles
- Prepared banquet programs, meeting agendas, (prepared contest teams in parliamentary procedure and speech)
- School announcements, chapter scrapbook, school news on school's cable TV, letter writing.
- Flyers for FFA labor auctions, newspaper articles
- Chapter newsletter
- Prepared local radio program
- The fifth objective was to describe the curriculum materials used by teachers. As with FFA activities, no appreciable differences were found between the two groups of teachers. Both groups used textbooks, but few used bound-curriculum materials.

Workshop Attendees

- Leadership: Personal Development and Career Success (Delmar) (6)
- National FFA videos
- Microsoft Windows 95 tutorial
- online resources
- College leadership course materials (2)
- Developing Leadership and Personal Skills (Interstate) (3)
- (CIMC, Oklahoma) Sales and Service Core Curriculum
- Materials from OSU Workshop

Workshop Non-attendees

- Leadership: Personal Development and Career Success (Delmar) (3)
- (TAMU) Instructional Materials Service booklets
- Roberts Rules of Order (2)
- Developing Leadership and Personal Skills (Interstate) (4)
- National FFA resources
- Claris Works, Netscape
- Internet resources
- OSU Agricultural Communications course notes
- State winning public speaking manuscripts
- Leadership materials from Troy Hinkle (undergraduate AgEd student)
- Nothing from CIMC (Oklahoma)

Conclusions

The purpose of this study was to determine the impact of a professional development workshop for agricultural education teachers and assess the instruction given in a new secondary agricultural education course. Students enrolled in the Agricultural Communications/Leadership course were much like other agricultural education students in terms of ethnicity and enrollment. Females were represented at a much higher number than in other agricultural education courses and this course tended to attract students who were serving as FFA chapter officers. Enrollment in this upper-division course attracted sophomores, juniors, and seniors evenly.

Agricultural Education teachers devoted most of their instructional time to public speaking, parliamentary procedure, preparing newsletters, and research. Little instructional time was devoted to decision-making, time management, self-concept, and non-verbal communications. Teachers who attended the professional development workshop taught a significantly higher number of days on communications and Internet applications. Those teachers also taught a significantly fewer number of days in the public speaking than did teachers who did not attend the workshop. Teachers from both groups devoted about the same instructional time to leadership topics. It can be concluded that the professional development workshop was effective in influencing teachers to incorporate communications and Internet resources and in minimizing devotion to parliamentary procedure.

Teachers were effective in incorporating appropriate FFA activities into the Agricultural Communications/Leadership course. Teachers reported preparing FFA news releases, maintaining chapter homepages, developing FFA chapter newsletters, and radio and cable access television programs.

Curriculum materials used by teachers included leadership and communications textbooks specifically geared to secondary agricultural education and materials from college coursework in agricultural leadership and communications.

References

- Barrick, K.R., Ladewig, H.W., & Hedges, L.E. (1983). Development of a systematic approach to identifying technical institute needs of teachers. *The Journal of American Association of Teacher Educators in Agriculture*, *21*(1): 13-19.
- Brown, F.W., & Fritz, S. M. (1994). Determining the breadth of leadership and human resources management/development offerings in post-secondary departments of agricultural education. *The Journal of American Association of Teacher Educators in Agriculture*, *35*(3): 1-5.
- Ford, D.L. and Nemiroff, P.M.(1975). Applied group problem solving: The nominal group technique. The 1975 Annual Handbook for Group Facilitators. University Associates. 1975.
- Moman, J.K. (1998). An assessment of collaboration efforts of teachers attending the Oklahoma Agriscience Institute. Unpublished master's thesis. Oklahoma State University, Stillwater, Oklahoma.
- National FFA Organization (1998). *Guidelines for the National FFA Agricultural Communications Career Development Event*. Indianapolis, Indiana National FFA.
- National Research Council. (1996). *The Role of Scientists in the Professional Development of Science Teachers*. Washington, DC: National Academy Press.
- National Research Council. (1988). *Understanding agriculture: New directions for education*. Washington DC: National Academy Press.
- Norris, R.J. & Briers, G. E. (1988). Perceptions of secondary agricultural science teachers proposed changes in agricultural curricula in Texas. *Journal of Agricultural Education*, *30*(1): 32-43.
- Oklahoma Department of Vocational and Technical Education (1996). *Agricultural education: Preparing young people for careers in the 21st century and beyond*. Stillwater, Oklahoma.
- Terry, R., Jr. (1996). Enhancing the agricultural communications curriculum. *Proceedings of the 1996 National Agricultural Education Research Meeting*. Cincinnati, Ohio.