

A National Study of Recommended Curricula for Extension Education Methods Classes and Student Internship Programs

Jim Legacy, Professor
Joe Wells, Research Assistant
Agricultural Education & Mechanization
Southern Illinois University

Accepted for Publication May 1987

Since the passage of the Smith-Lever Act in 1914, colleges of agriculture have prepared people to work for the Cooperative Extension Service, as researchers, field agents and administrators. Informing the public of the results of successful practice was the foundation of the extension service. The role of the local agent of the Cooperative Extension Service has been important in helping to extend the adoption of proven practices.

The role of the extension agent had changed considerably from the days when the agent's main activity was to demonstrate new practice. In the present society, the complexity and diversity of the information in the area of agriculture, as well as the presence of various sources of information in modern communities, had made it practically impossible for the agent to know all one would need to know to solve or answer the variety of problems that confront the agents. As more subject matter specialists had been utilized in the extension service to fill the need for technical expertise, the role of the local agent had become more a "contact" person (National Advisory Council, 1972, p. 11).

Educational institutions have supported the Cooperative Extension Service through pre-service and in-service training programs for extension agents. It has been necessary for these programs to change to meet the needs of the present time. Memmesheimer (1983) reported that a need existed for the evaluation of curricula for undergraduate extension education methods classes and student extension internships. Mowrer and Anderson (1977) noted that an increase in variety of extension methods were being used and needed to be taught at the University.

Purpose of the Study

The purpose of this research was to determine what extension education methods and other course content items experienced extension agents consider important as instructional topics for an undergraduate extension education methods class and student internship program. The two independent variables for this research were: (a) topic used by class or internship and (b) type of agent (home, youth or agriculture).

The research questions studied were:

1. What was the importance of items to be taught in a university extension education methods class?
2. What was the importance of items to be taught during an extension education student internship program?
3. What was the importance of items to be taught during an extension class and internship as recommended by type of agent?

*Journal of the American Association
of Teacher Educators in Agriculture
Volume 28, Number 4, pp.9-14
DOI: 10.5032/jaatea.1987.04009*

Methodology

The population of the study consisted of experienced and highly competent extension service (agriculture, home and youth) agents. Professors from 70 colleges of agriculture in the United States were asked to provide the researchers with a sample of experienced and highly competent extension agents. A request was made to provide one name for the three program areas of youth, home, and agriculture from each state. Two follow-up mailings resulted in 45 colleges from 43 states returning 135 usable names of agents. Only agents from colleges who returned three names (one for each program) were included in the sample.

A questionnaire, used in a previous study (Memmesheimer, 1983), was used in surveying extension agents. A reliability coefficient, $\alpha = .94$, was reported for the questionnaire as used in the Memmesheimer study. The original questionnaire used in the Memmesheimer study was validated by a panel of six extension specialists from two mid-western states. Nineteen extension education instructional topics identified by the Memmesheimer study were selected as the study's dependent variables. The 19 items were listed in two categories: (a) general topics ($n = 7$); and (b) extension method topics ($n = 12$). Each item was rated for course importance and internship program importance, using a rating scale range of 4 = high importance, 3 = important, 2 = some importance, and 1 = low importance. A pretest of the questionnaire was completed by 11 extension agents who had five or more years of experience as an agent. These agents reported no difficulty in understanding or responding to the instrument.

The national sample of 135 agents from 43 states was mailed a survey packet containing a cover letter, questionnaire and a pre-addressed, postage-paid envelope. Those who had not responded within three weeks were mailed a reminder card. The total response from agents was 116 or 85.9%. A telephone follow-up to a random group of five non-respondents was completed to compare results of respondents and non-respondents. Non-respondent data were well within the range of responses received from the study's 116 participants.

The data were examined by program area (agriculture, home and youth) and by comparing the level of importance assigned to each topic for use in the extension methods class and the student internship program. The descriptive statistics used to analyze the study's data included frequency response, percentages, and Spearman's rank order correlation. Rank orders were determined by using the High Importance frequency response for each variable. The alpha level of significant correlation for the Spearman's rank order analysis was set at 0.05.

Results

The results of the study indicated that each of the 19 topic items was recommended as high importance or important by two-thirds or more of the respondents, for both the extension method class and the student internship program. The three instructional items with the greatest number of high importance scores were Program Planning and Maintenance (68.5%), Media Presentations (69.2%), and Program Evaluation (67.2%). For this study, a significant rank order correlation is a report of agreement among groups. Differences were reported when nonsignificant correlations were found. Differences were found in the order of importance of the 19 extension education instructional topics between the learning environments of class and internship. Differences also existed in the rank order of item importance by the type of agent.

Table 1

Percent of Agents Assigning High Importance and Importance Responses

Item	High Importance	Important
General topics:		
Program planning and maintenance	68.5	28.3
Program evaluation	67.2	27.3
Volunteer recruiting, training and management	66.6	26.4
Committee involvement	64.6	26.8
Cooperative Extension Service organization	41.4	41.8
Extension reporting methods	36.6	33.2
Cooperative Extension Service history	21.2	45.6
Extension education methods		
Media presentation	69.2	26.9
Time management training	63.0	26.9
Result and methods demonstrations	61.1	32.2
Microcomputers as a teaching device	60.2	31.4
Radio	54.3	42.2
Personal visits	53.3	28.5
Extension meetings	52.5	33.8
Television video	46.9	45.3
Clinic & short course	40.4	46.5
Tour & field days	38.4	42.7
Educational exhibits	30.8	50.3
Extension & politics	29.5	41.6

The seven general topic items (Table 2) were ranked according to the rating of the agents' responses. The Spearman's rank order correlation from Table 2 indicated a difference existed in rankings for general topics between the extension education methods class and the student internship program.

Table 2

Ranking of Extension Education General Topics by Agents

Item	Course	Internship
Program planning and maintenance	1	1.5
Program evaluation	2	4
Volunteer recruitment, training and management	3	3
Committee involvement	4	1.5
Cooperative extension service organization	5	6
Cooperative extension service history	6	7
Extension reporting methods	7	5

Spearman's rank = 0.706, df = 5, critical r = 0.786, alpha = .05.

The method topic items (Table 3) were ranked according to the rating of the agents' responses. The Spearman's rank order correlation from Table 3 indicated a difference existed in rank between the extension education method class and student internship program.

Table 3

Ranking of Extension Education Methods--Instructional Topics

Item	Course	Internship
Microcomputer as a teaching device	1	8
Media presentation	2	5
Time management training	3	6
Personal visits	4	1
Extension meetings	5	2
Result and demonstration	6.5	3
Radio	6.5	9
Tour and field days	8	4
Television/video	9	10
Clinic and short courses	10	7
Extension and politics	11	12
Educational exhibits	12	11

Spearman's rank = 0.539, df = 10, critical r = 0.591, alpha = .05.

When grouped by the independent variable, type of agent, the ranking of the seven general topic items resulted in significant correlations for comparisons between agriculture and home, agriculture and youth, and home and youth.

The rank order analysis of the twelve extension method items provided non-significant correlations between (a) agriculture and home agents and (b) agriculture and youth agents, indicating that differences existed by type of agent. Agriculture agents placed more importance on the items of Personal visits, Extension meetings, Microcomputers as a teaching device and Tours and field days. Home and youth agents placed more importance on the items of Radio, Educational exhibits and Television/video. A significant positive correlation was found in the extension method topics rank order of importance comparison between home and youth agents (see Table 5).

Conclusions and Recommendations

Conclusions

Cooperative Extension Service agents reported that each of the study's 7 general instructional topics and 12 extension methods instructional topics were either most important or important items to be taught in an extension education methods class. Cooperative Extension Service agents also reported that each of the 7 general instructional topics and 12 extension methods instructional topics were either most important or important items to be taught during an internship program.

Table 4

Ranking of General Topics by Type of Agent

Item	Home			
	Agriculture	Economics	Youth	Combined
Program planning & maintenance	1	1	1	1
Committee involvement	2	2	4	3
Volunteer recruitment training and management	3	3	2	2
Program evaluation	4	4	3	4
Cooperative extension service organization	5	5	5	5
Extension reporting methods	6	6	6	6
Cooperative extension service history	7	7	7	7

Agriculture/home economics agents: Spearman's rank = 1.00, df = 5, critical r = 0.786, alpha = .05.

Agriculture/youth agents: Spearman's rank = 0.893, df = 5, critical r = 0.786, alpha = .05.

Home economics/youth agents: Spearman's rank = 0.893, df = 5, critical r = 0.786, alpha = .05.

Table 5

Ranking of Extension Methods Topics by Type of Agent

Item	Home			
	Agriculture	Economics	Youth	Combined
Microcomputer as a teaching device	1	4	5	3
Media presentation	2	1	2	1
Time management training	3	2	1	2
Personal visits	4	12	9	7.5
Extension meetings	5	10	10	7.5
Radio	6.5	3	3	4
Result and method demonstration	6.5	5.5	5	5
Tour and field days	8	11	12	12
Television/video	9	5.5	5	6
Clinic and short courses	10	8	8	9
Extension and politics	11	9	7	10
Education exhibits	12	7	11	11

Agriculture/home economics agents: Spearman's Rank 0.412, df = 10, critical r = 0.591, alpha = .05.

Agriculture/youth agents: Spearman's rank correlation = 0.515, df = 10, critical r = 0.591, alpha = .05.

Home economics/youth agents: Spearman's rank = 0.882, df = 10, critical r = 0.591, alpha = .05.

Differences were found by type of agent in reporting overall importance preferences for teaching extension methods. No differences were found by type of agent in reporting importance preferences for the seven general extension topics.

Recommendations

The 7 general extension topics and 12 extension methods instructional topics should be taught in extension education methods class. Extension education method classes and internships should be offered separately by type of agent or should allow for a variance of instructional topic importance when offered in a single program.

References

- Cooperative extension handbook. (1978). Urbana-Champaign: University of Illinois.
- Legacy, J. W. (1981). Program development in agricultural extension. Minneapolis: Burgess Press.
- Mermeshelmer, P. M. (1983). A study of the current status of extension education training and the course content at selected universities. Unpublished master's thesis, Southern Illinois University, Carbondale.
- Mowrer, J. L., & Anderson, L. (1977, September/October). A unique way to get an ag degree. Journal of Extension, 15, 18-22.
- National Advisory Council. (1972). Sixth annual report of the National Advisory Council on Extension and Continuing Education, pursuant to public law 89-329. Washington, DC: U.S. Department of Agriculture.
- Wood, L., & Davis, B. G. (1978). Designing and evaluating higher education curricula, (AAHE-ERIC/Higher Education Research Report No. 8, 1978). Washington, DC: American Association for Higher Education.
-

The Journal of the AATEA

1987

Editing-Managing Board

Eastern Region

Dean Sutphin
Cornell University

Southern Region

Gary Moore, Chairman
Louisiana State University

Central Region

Earl Russell
University of Illinois

Western Region

James Leising, Secretary
University of California, Davis

Past Editor

John Hillison

Virginia Polytechnic Institute and State University