

AN EVALUATION OF THE PERCEIVED
EFFECTIVENESS OF THE INSERVICE
TRAINING PROGRAM IN AGRICULTURE EDUCATION

by

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CHAPTER 1

CONTEXT OF THE PROBLEM

Educators have long concurred that *inservice education* is both worthwhile and necessary. Preservice education that takes place before teaching is not always ideal and seldom provides the training that can only be acquired through hands-on-experience. Consequently, an inservice education program is needed to improve the performance level of beginning teachers. It follows then, that inservice education would be a valuable experience for teachers of vocational agriculture. The aim of inservice education should be to provide teachers who have competence to handle the task effectively that is assigned to them. Because changes continually occur within the field of vocational agriculture, it would seem that a place is needed for teachers to collaborate their ideas, stimulate the thinking process, and to receive the training that is necessary to improve the performance of their abilities.

Numerous studies have been conducted throughout the field of vocational agriculture concerning inservice education; however, very little research has taken place to document the effectiveness of inservice training. An evaluation of the goals that are to be accomplished in the inservice training program and documentation of the perceived effectiveness would be valuable to the profession. Modifications within this program need to be highlighted and then implemented to continue to make inservice education more effective. The major aims of inservice training should be to aid teachers in acquiring competencies needed to cope with professional tasks more readily.

In education, it has been long recognized that experiences received

while on-the-job are invaluable. Where changes occur rather rapidly in a very highly technical field, and specialization in agriculture must take place, then it becomes a problem to provide the on-the-job experiences for vocational agriculture instructors. Changes have been experienced because the field of agriculture has become more specialized and more diveristy has taken place. Inservice training should be designed to keep teachers up-to-date on activities that change from time to time. An inservice training program should also be specifically designed to keep beginning teachers aware of activities and techniques that they might need to survive their first years as a teacher. Experienced teachers also benefit from the training by sharpening their skills and by learning new skills that make them more effective teachers. By taking the inservice training, a teacher might acquire a certain amount of on-the-job experiences but in a much shorter time period.

Objectives

The primary objective of this study was to examine the effectiveness of the inservice training program in agricultural education for beginning teachers in Kansas. This objective was accomplished by determining these specific objectives:

1. To evaluate and determine if the inservice training program is effective.
2. To determine a participant's perceptions of selected professional competencies prior to and after completion of inservice training.
3. To recommend any modifications that might be appropriate within the inservice training program.

Significance of The Study

After completion of this study, a better understanding should exist

regarding the effectiveness of the vocational agriculture teacher inservice program at Kansas State University. Any modifications that are suggested should be carefully weighed and possibly be implemented to upgrade the program. Hopefully this study will reconfirm the effectiveness that inservice training does and will serve as a testimonial. A hard look is being taken by state and federal governments of many education programs to make revisions. This study could complement the belief that inservice training is a viable and valuable program. Any changes that might make this activity more productive and worthy should be carefully reviewed and implemented if necessary.

Definitions of Terms

A list of terms was developed to assist the reader and aid in comprehension of the study. The following is a list of those terms:

1. Inservice training -- The following definition is offered by Nicholson in his literature review:

The whole range of activities by which teachers can extend their personal education, can contribute to improvement of the job, to promote professional growth and development, and to improve their understanding of educational principles and techniques.

2. Inservice coordinator -- The person who is responsible for planning and administering inservice training and selects the program and decides what topics and issues are to be covered.

3. Vocational agriculture -- The following definition is offered by Garten:

The training of high school students through an instructional

¹Alexander N. Nicholson, "The Literature on Inservice Teacher Education - An Analytical Review," Dissertation, (June 1976), p. 112.

program to develop and/or supplement skills in agriculture/agribusiness occupations in a state approved program.²

4. Provisional teacher -- a person who received a one-year provisional certificate by taking the necessary steps required to obtain regular certification. The following provisional requirements must be met 1) a high school diploma or its equivalent; 2) two years of approved experience in the area the candidate is planning to teach; 3) successful completion of a competency examination; and 4) completion of new teacher workshop.

Limitations to the Study

The limitations of this study are:

1. Those vocational agriculture teachers who participated in beginning teacher meetings during a five year period from 1979-1983.
2. Teachers that had left the vocational agriculture teaching field were not included in this study.

²L. Garten, "High school Perceptions of Teaching Vocational Agriculture as a Career," Masters report, (1981), p. 4.

CHAPTER 2

REVIEW OF THE LITERATURE

In recent years, much time and research has been devoted to examining inservice training. However, little research is revealed evaluating the effectiveness of the training and modifications that need to be undertaken to improve inservice education. Many models are proposed that should be examined but little work has taken place to see if these models are being utilized as they were designed to. Numerous studies have been conducted in an effort to provide models for inservice training and to suggest topics for the training to encompass. The investigator found little work completed to evaluate the goals of inservice training programs. The investigator wonders if changes might need to be implemented to make the program more effective.

Some very useful and descriptive definitions for inservice education were revealed by Nicholson.³ These definitions provide a better comprehension of the scope inservice education covers. Inservice education was explained as a whole range of activities by which teachers can extend their personal education, develop their professional competence, and to improve their understanding of educational principles and techniques. Another helpful explanation that Nicholson presented of inservice education was that it contributes to improvement of the job, to promote professional growth and development, plus the improvement of professional staff members instruction improvement of professional competencies, knowledge, skills and attitudes needed for the performance of assigned responsibilities.

³Alexander N. Nicholson, "The Literature on Inservice Teacher Education - An Analytical Review," Dissertation, (June 1976), p. 112.

This development of knowledge and skills is an extension of activities that were not available at the time of preservice education. This provided some good working definitions of inservice education that are fairly easy to comprehend and relate.

Also included in Nicholson's review are motivations for obtaining inservice training. Three types of motivations exist that encourage teachers to take advantage of the training: 1) Job-oriented motivation takes place because the inservice is designed to meet the needs of the specific job situation in which the teacher finds himself. The priorities here are set presumably by the employer; 2) A professional-oriented person might take the training merely as an education for a professional in teaching, regardless of the job assignment; and 3) The third type is person-oriented for the teacher as an individual, beyond any job or professional requirements. The motivation technique selected reflects back upon the effectiveness of the training.

In view of the revision of existing programs and the development of new programs in agriculture education at the high school level, Warmbrod and Phillips announced that:

. . . it is imperative that the re-education and upgrading of teachers and other⁴ personnel in agriculture education be given prompt education.

Also, while explaining the needs for inservice education for instructors of agricultural occupations, it was said that the broadening of vocational education in agriculture to include education for all occupations involving knowledge and skill in agriculture has created a need for additional competencies by agricultural educators. One of the new areas of competence

⁴J.R. Warmbrod, "Inservice Education: Crucial for the Times," The Agricultural Education Magazine, (Jan. 1969) Vol. 47, No. 5. p. 16.

has to do with the subject matter or content of instruction. To plan, conduct, and evaluate educational programs relating to business and industry in agriculture, agricultural educators need to be familiar with and have some knowledge of the non-farm business and industrial complex. Neither the management nor the operation of agriculture knowledge and skill in the context of business and industry has generally been a part of the educational or experimental backgrounds of agricultural educators. An immediate task of the profession, then, is the upgrading of its members in their areas of technical competence.

Warmbrod also recognizes the further need for continual improvement:

Agricultural education, like any profession that wishes to continue to be dynamic and viable, must place high priority on the continual improvement and updating of the technical and professional competence of its members.

This article suggests that if teachers are to continue to be effective and remain up-to-date then agriculture educators need the inservice training that is available to them. Educators within the field of vocational agriculture are faced with problems keeping up-to-date with technology in agriculture and in education. These areas are critical for a vocational agriculture teacher to survive.

Lee's⁶ article on keeping up-to-date stresses that new technology in agriculture may be more critical in maximizing agriculture productivity than are new educational practices in maximizing student achievement. Agriculture educators need to keep up-to-date in farming and ranching in addition to many off-farm areas. In the discussion of educational practices, the problem is to determine which changes make a difference in student

⁵Ibid.

⁶J.S. Lee, "Can We Keep Up to Date," The Agricultural Education Magazine, (March 1981) Vol. 53, No. 9. p. 10

achievement and those which are fad and may actually result in reduced student achievement.

Brown⁷ discussed that the competencies necessary to succeed as a vocational agriculture teacher are included in a well-planned preservice education program. However, the retention and perfection of the skills and competencies acquired until they are put into use on the job, are alarmingly low. The new agriculture teacher is presented not only with the task of becoming established in the community, but also staying up-to-date and technically competent in an ever changing field. Providing assistance to the new teacher is a challenge to the teacher educator.

A great many opportunities exist for teachers to maintain professional and technical skills through different activities. Beginning teaching meetings and visitations by the inservice coordinator help to sharpen and develop these skills. The inservice workshops are being used to include this technology in the classroom.

Educators agree that inservice training is needed. Kelly quotes James B. Conant who said:

The world has become so complicated that if man stops his education when he leaves school, college, or even professional school, he is doomed to educational mediocrity. Things are changing so rapidly. And if your talents lead you to a professional field, there is no end of your education.

The article explains the responsibilities of teacher educators and supervisors to develop a plan whereby vocational agriculture teachers will have the inservice training and then make it possible for them to keep up-to-date. When programs are developed for the purpose of keeping

⁷D. Brown, "Inservice Training is a Means of Survival for New Teachers," The Agricultural Education Magazine, (Sept. 1980) Vol. 53, No. 3. p. 21.

⁸W.G. Kelly, "Working Together to Keep Up-To-Date," The Agricultural Education Magazine, (March 1981) Vol. 53, No. 9. pp. 3,4

teachers up-to-date, input is needed to determine interests.

A very useful discussion of the inservice program is given by Cooper.⁹ The public is more exposed to the nations dependency of agriculture, and more respect for the career education concept. Where changes have taken place in the curriculum of agriculture education, this presents complications in the pre-service and inservice education for teachers. Specialization has taken place in the field of agriculture education and options include production agriculture, agriculture sales and service, agriculture mechanics, agriculture processing, horticulture, management, forestry, and others.

The following reasons by Cooper are listed:

1. In many communities, the public, including the education sector, is demanding that vocational agriculture programs include instruction in more than production agriculture alone. Failure to modify or expand the program may result in the gradual or abrupt closure of a local department.
2. Similarly, those in the agricultural education profession have recognized the need to provide new options in existing programs. The addition of new options in existing programs requires teachers to update or expand their knowledge and skills.
3. Some teachers have entered the profession by way of subject matter specialization and have met certification requirements by taking pedagogical courses which may not have oriented teachers in the concept of a total program in agriculture. After starting in a teaching position, the individual must rely on inservice activities to correct the deficiency.
4. Not all colleges have required that prospective teachers have farm or other appropriate experience backgrounds before graduation. Teachers attempting to advise FFA chapters generally find the assignment very frustrating if they have not had experience in an FFA chapter or start their teaching careers in a multi-teacher department with an established FFA.
5. New developments in the agriculture/agribusiness industry may impose the need for a teacher to offer special training programs which require new teacher expertise.

⁹E.L. Cooper, "Inservice Needs - Greater Than Ever," The Agricultural Education Magazine, (Aug. 1977) Vol. 50, No. 2. pp. 27,28.

6. A rapidly changing technology makes some information learned in undergraduate education obsolete in just a few years. This necessitates inservice experiences for teachers to maintain acceptable levels of proficiency.

7. Some teacher education institutions have dwelled essentially on theory and academic approaches to education to the exclusion of skill development. The outcomes are quite predictable.¹⁰

The following approaches are suggested by Cooper so that teachers, supervisors, and universities can do more to meet inservice needs:

1. The state supervisory staff would provide leadership in accessing inservice needs, locating agencies or persons to provide the necessary services, and in working out appropriate funding procedures.
2. Teachers should use their professional organizations as mechanisms to identify needs for inservice experiences. In order for the process to be effective, all teachers need to be active members of the professional organization and communicate their needs to the supervisory staff.
3. The state supervisory staff must solicit the cooperation and support of local administrators in order that arrangements can be made for teachers to participate in workshops, college courses, field days, open houses, conferences, and short courses.
4. The state supervisory staff must provide liaison between the total agribusiness community, teacher education institutions, governmental agencies, and the general public so as to gain access to all delivery systems which can offer inservice benefits to teachers.
5. Teachers should relate their inservice needs and take an active role in planning with supervisors, teacher educators, and others in meeting these needs.
6. Once inservice activities are planned which reflect expressed needs, then teachers should give solid support by actively participating in those activities. Many potentially inservice opportunities are cancelled because of insufficient turnout for a specific event or for a specific event or for similar activities in the past.
7. Teacher educators must develop viable programs and generate resources in colleges and universities to provide short courses, workshops, conferences, and courses for teachers. These must be offered at times and places convenient for teachers.
8. Teacher educators should generate or purchase curriculum materials and maintain a rather complete file of resources available to local teachers.

¹⁰ Ibid.

9. Teacher educators must constantly seek out ways to be of service to teachers and to communicate teacher needs to the university community.

10. The university must examine real teacher needs and grant credit for those activities which make for the better classroom teachers. The skills needed by teachers are generally quite different from those needed by research specialists and the degree programs should be different for the two groups.¹¹

The inservice training program is complex and difficulty takes place to understand changes that might need to be implemented to improve it. The teacher is the primary figure involved to provide for a successful program. The needs of the teacher should be assessed and resources need to be put into use to meet those needs.

Research and related literature examined in this study would seem to support the importance of evaluating the significance of the teacher inservice training program.

Field, in a Kansas State University handout for Adult and Occupational Education lists the responsibilities of the inservice coordinator:

1. Provide concentrated assistance to all first and second year vocational agriculture secondary, postsecondary, and adult instructors.
 - a. Provide technical assistance at the local level through a minimum of two on-site visits for the first year teachers annually and additional visits as identified by inservice teacher educators to include curriculum content, program planning, and classroom discipline. A minimum of one visit will be provided each semester.
 - b. Provide technical assistance at the local level through a minimum of one on-site visit for second year teachers annually to include, but not limited, to advisory council, public relations, adult education, and integrating student organizations.
 - c. Provide a minimum of one on-site visit to first and second year provisionally certified instructors annually to develop and complete programs of individualized needs and to assist

¹¹ Ibid.

them in meeting certification requirements.

- d. Contact administrators during the on-site visit to provide information on vocational agriculture program and inservice opportunities available for their first and/or second year instructors.
 - e. Provide a minimum of three meetings at four different locations each school year for consideration of solving current needs of agriculture education first and second year instructors.
 - f. Attend and participate in four fall and four spring area meetings conducted by the Vocational Education Administration Section annually to discuss with and assist first and second year instructors on their individual concerns.
 - g. Arrange, plan, and coordinate at least two statewide inservice meetings annually for first and second year instructors to provide special assistance, information, and curriculum updating.
 - h. Provide, upon request, telephone or written technical assistance.
 - i. Provide at least four days of statewide professional educational meetings annually to assist provisionally certified personnel in reaching an acceptable level of professional education competency.
2. Provide on-site visits for the purpose of technical assistance to existing teachers upon the instructor request or by approval from the inservice educator.
 3. Attend Vocational Education Administration staff meetings as scheduled.
 4. Meet on a monthly basis with the Education Program Specialist and provide a monthly summary field report of activities.
 5. Coordinate all inservice meetings for secondary, postsecondary and adult instructors with the Vocational Education Administration Section, State Department of Education, Kansas State University Teacher Education, and professional vocational teachers association.
 6. Serve on the record book committee as an active member for the purpose of updating, revision, and technical assistance of the record book.
 7. Participate in a professional leadership role in the identification, development and dissemination of new materials and evaluation of techniques and strategies in teaching.
 8. Identify and assess the needs of first and second year teachers and assist in making arrangements that meet these needs.

9. Provide a minimum of one statewide inservice workshop annually for all secondary teachers.
10. Be available to assist and promote student organizations upon request by the advisor, executive secretary or officers of the Kansas Association of FFA, Kansas Young Farmers, and the Kansas Young Farm Wives student organizations.
11. Contact and encourage all first and second year teachers to work with community agencies, business and industry in updating their work experience.
12. Participate in Vocational Education program evaluations at the request of the Vocational Education Administering Section.¹²

Summary

The preceding review of research and related literature contained many findings that were useful as a background for this study. The importance of inservice education is realized and it is stressed that inservice training needs to be expanded. The review of the literature revealed that much effort needs to be put into this training program as it provides a wide basis for the true effectiveness that takes place in the teachers classroom.

The information on the preceding pages represents a review of related literature in the area of inservice education. The investigator found the following definite points:

1. Agricultural education, to continue to be dynamic and viable, must place priority on the continual improvement and updating of its teachers.
2. Retention and perfection of skills acquired during pre-service training is low until put into use, so some type of refresher course is often required.
3. Teachers need to take an active role in planning with supervisors, teacher educators, and others to meet their needs.

¹²R.G. Field, "Inservice Program for First and Second Year Vocational Agriculture Teachers," Adult and Occupational Education guidelines-KSU, (1983), Exhibit A.

4. Universities must examine real teacher needs and grant credit for those activities which make better classroom teachers.

5. It is important that re-education and upgrading of teachers in agriculture education be given the required attention.

Research and related literature examined in this study would seem to support the importance of the training program and seems to suggest that some type of evaluation of this training program might need to take place which hopefully this study will encompass.

CHAPTER 3

METHODOLOGY

Providing an evaluation and recommend modifications in the inservice training program at Kansas State University would help make the inservice training program stronger and more effective. In examining the techniques used in researching this study, this chapter will present the following sub-headings: population, procedure, instrumentation, and analysis of data.

Population

The population of this study included 72 *secondary* vocational agriculture teachers who taught in Kansas high schools during the 1983-1984 school year. The target population was not stratified as a complete sample was surveyed using the following guidelines: 1) The participants had recently, or were currently receiving inservice training and 2) the respondents were limited to teachers who had received inservice training during a five year period for 1979-1984.

Procedure

A copy of the methodology was taken to Dr. Michael Holen, chairman of the Kansas State College of Education committee on research involving human subject to see than no inadequacies or discrimination were included in this study. This included the complete procedure for obtaining information and all data collection instruments. After consent was given a letter explaining the survey (Appendix A) and the survey (Appendix B) were mailed on March 5, 1984. Seventy-two surveys were sent, and a self-addressed stamped envelope was included to facilitate returns. On May 1, 1984 forty-five surveys were returned which made the first return rate 62 percent.