

A Conceptual Model for a Program of Agricultural Education in Colleges and Universities

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Departments or programs of agricultural education have been a part of many universities since the turn of the century. Most were established in response to the need for high school teachers of agriculture for the newly-funded federal vocational agriculture programs throughout the country. The National Vocational Education Act of 1917, commonly called Smith-Hughes, provided for programs of vocational agriculture in rural high schools for the purpose of developing interest and competency in farming. Although similar programs existed prior to 1917, the demand for teachers was increased many fold with the advent of the Federal legislation. In Ohio, as an example, there were 58 agriculture teachers in 1916; within a year after the passage of Smith-Hughes, a new crop of 17 teachers had been prepared for Ohio schools (Wolf, 1969).

Flesher (1958) reiterated the philosophy of agricultural education at the university level. Drawing upon Klein's writings of 1930, he wrote that agricultural education is a primary concern of the land-grant universities, and that the training of agriculture teachers for the public schools is one of the most important functions of the agricultural colleges. Agricultural education is a rapidly expanding program.

Bender (1977) indicated that, for the most part, agricultural education in universities has meant the preparation of teachers of vocational agriculture, and perhaps has been limited too much to that single function. The Commission on Education and Natural Resources (1971) reported:

The responsibilities of staff members in agricultural education will extend to encompass some functions not now regularly carried out. They will establish contact with a wide clientele. Regardless of the form that teacher education programs take, the underlying purpose is to develop understanding and an ability to design, implement, and evaluate educational programs.

Bender (1977) further indicated that teacher educators need to design programs for preparing personnel in addition to vocational agriculture teachers. Those personnel included post-high school teachers, extension personnel, agricultural educators entering international education, agricultural educators for business including sales, promotion and public relations, elementary and secondary teachers of general agriculture, adult education instructors, and teachers to work with disadvantaged students.

A "Debate the Issues" topic in *The Journal of the American Association of Teacher Educators in Agriculture* (1981) addressed the academic home of agricultural teacher education. While one article purported that vocational education should be the location of agricultural education (Smith & Gassie, 1981), the basis was that agricultural education should be a coordinated part of vocational education. The opposing view (Shinn & Cheek, 1981) opened the door to admitting that cooperative extension is a part of agricultural education in a broad sense, and that agricultural teacher education should be a part of various functions in nonformal teaching.

Just as Russell (1981) argued regarding the administration of vocational agriculture programs through the U. S. Department of Education rather than the U.S. Department of Agriculture, agricultural education is probably more in line with education and about agriculture in a variety of settings rather than limited to a narrowly-focused mission of vocational or occupational education. Extrapolating from Russell, agricultural education at the University level is an educational program, not a vocational program. Vocational is only one part of education in agriculture.

Several departments and programs of agricultural education have attempted to emphasize areas in addition to vocational teacher preparation. Crunkilton, Camp, Clouse, McMillion and Oliver (1985) listed purposes of the Agricultural Education Program Area at Virginia Tech. Those purposes, while focused on traditional vocational agriculture and extension, referred to agricultural education practitioners, youth and adult organizations in agriculture, and individuals and agencies involved in agriculture and agribusiness. Such terms open the door to thinking of agricultural education as more than vocational teacher preparation in agriculture. Based upon an informal review of the names of departments (Whaley, 1991-92), agricultural education has embraced extension education to a greater degree than any other area beyond teacher preparation. Mechanization, general studies in agriculture, and adult education appear to be part of several departments. But in a different vein, many agricultural education programs are imbedded in other, more general units such as vocational or occupational education, curriculum and instruction, and agriculture.

Crawford (1987) defined the mission of agricultural education in a university to be "Teaching others to teach in agriculture" (p. 5). Crawford was quick to point out that teaching can be interpreted in many ways and include formal and nonformal settings. Nelson (1986) charged teacher educators in agriculture to be more proactive and to establish direction that would be broader than the historic Smith-Hughes responsibilities. What, then, should a department of agricultural education be? What can it be? What must it be in order to maintain a place in higher education? To help address those questions and others, a model for agricultural education at Ohio State University was prepared. Admittedly still in a stage of refinement, the model is based upon four basic premises:

The preparation of educators in agriculture is central to the mission of the department.

The application of the mission should encompass more than vocational teacher preparation in agriculture.

All parts of the model should contribute to the central mission; therefore, all parts should be related to each other.

The mission serves as the driving force; the various settings are of secondary concern.

Teacher Preparation is Central

The first premise for the model is that the preparation of educators in agriculture is the central mission of the department. As noted above, departments were founded for the

express purpose of preparing high school teachers. To pretend that the original purpose should be changed or has been changed would be detrimental to the advancement of the department. Instead, as other programs are added to the mission, the centrality of the teaching/learning process becomes even more important. The one part of a department which separates it, makes it unique, when compared to other departments in agriculture is instruction in teaching and learning.

Encompass More Than Teacher Preparation

While teacher preparation is the central mission, the application of the teaching/learning process can be made in a variety of other settings. Teacher preparation should be redefined to include the preparation of personnel who will apply the teaching/learning process in agriculture. Extension education is a common example. Extension agents are teachers who utilize teaching/learning processes in nonformal settings and with audiences that include youth and adults. Communication also involves the principles of teaching and learning, but typically through print media or in nonformal situations such as broadcast and advertising.

Relationship of the Various Parts

In order to achieve some degree of harmony and preserve the unity of the mission, the various parts of the department should contribute to the central mission and, therefore, be related to each other. The tendency to consolidate resources in order to expand or survive is a strong temptation for departments and even for colleges. Mergers can lead to efficiency of resource utilization; however, marriages of convenience seldom work. As the mission of the department is redefined and refined to include areas in addition to teacher preparation in a narrow sense, care must be taken that all the parts fit. Assuming administrative responsibility for a unit or program that is unrelated to the central mission will accomplish little and may lead to division among the ranks. Likewise, being consumed by a unit with unrelated or highly specific goals could result in a second-class citizenry for agricultural education.

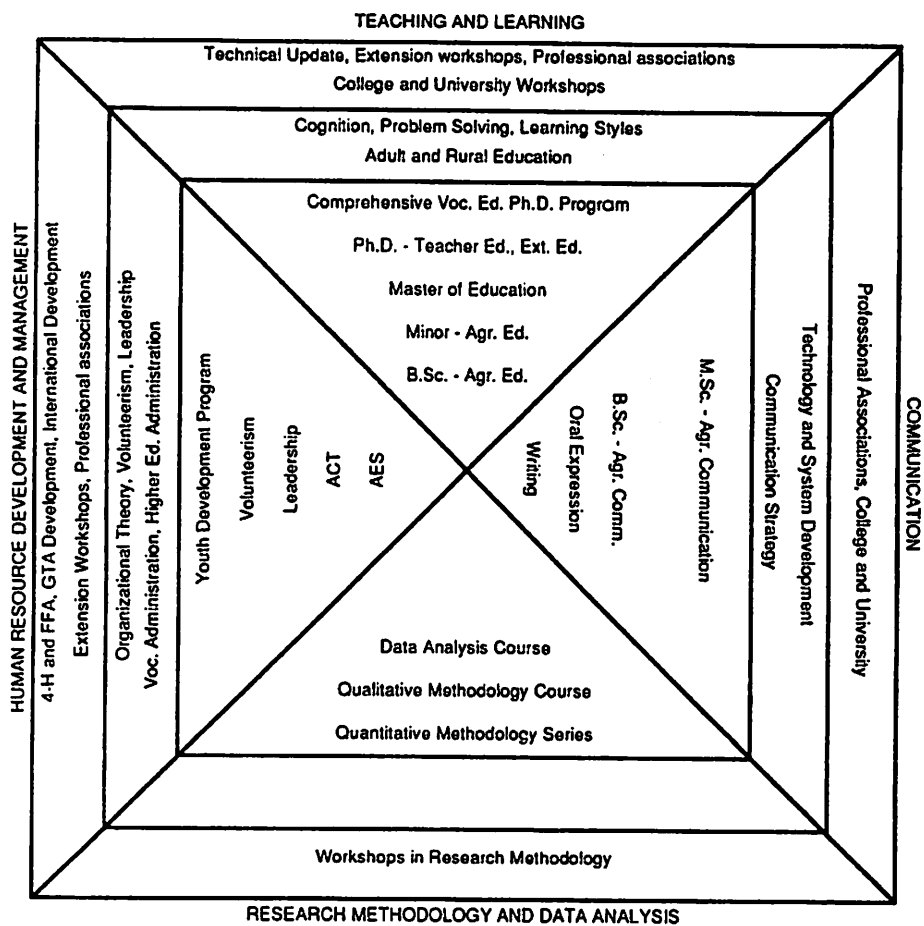
Settings are of Secondary Concern

Finally, a clearly defined mission should serve as the driving force for the activities of the department. The various settings in which the mission is applied should be of secondary concern. For years, teacher education has been the moniker for agricultural education, indicating that the primary (or only) setting is public school teaching. While the label was appropriate 75 years ago, such names are of secondary importance today. Where the teaching/learning process is applied is not as important as the process itself. In order to expand the mission appropriately, the mission should be the focus, and such terms as public schools, extension, international, media, and higher education should be used as descriptors of the teaching/learning applications much the same as beef, sheep and swine are descriptors of animal nutrition applications.

The Model

Swanson (1991) identified four imperatives for the future of agricultural education. He indicated:

CONCEPTUAL MODEL OF THE DEPARTMENT OF AGRICULTURAL EDUCATION



A fourth imperative for the future of agricultural education is to recognize and to reduce the effect of ideological rigidities, the propensity to find one best way to do things and to find it excessively easy to substitute means for ends. . The best way to begin is through introspection, an acceptance of pluralism and willingness to be in the forefront in educational thought and practice (p.8).

While it is recognized that no one model can be the right model for all agricultural education departments, the hope is that a model which goes beyond traditional thinking can serve as an example as others develop a new way of thinking about a mission.

The model preserves the land-grant mission, in that there are three rings representing teaching, research and service. Gone, however, are the traditional designations of vocational agriculture, extension, and the like. In their place are terms that identify the four components of the mission of the Department of Agricultural Education at The Ohio State University: Teaching and Learning, Human Resource Development and Management, Communication, and Research Methodology and Data Analysis.

Teaching and Learning

The Teaching and Learning component encompasses those activities which are directly related to teaching people how to teach. Within the teaching portion of the component are the degree programs in agricultural education. Imbedded within those degree programs are the traditional settings. For example, the B.S. in Agricultural Education includes emphasis areas in teacher certification, extension education, and agribusiness education and training. The minor in agricultural education, which has a nonformal education basis, is open to majors in departments other than agricultural education. Similar emphasis areas are identified in the M.S. and Ph.D. programs. The department also administers the doctoral program in Comprehensive Vocational Education.

Within the second ring are the research activities of the component. The department, through an assemblage of faculty programmatic research agendas, has identified four research thrusts related to teaching and learning. They are Cognition, Problem-solving, Learning Styles, and Adult and Rural Education. The outer ring identifies the service activities, namely providing inservice education for teachers and agents, work in professional associations, and workshops on teaching and learning for faculty and students from other departments.

Human Resource Development and Management

The second component of the model, Human Resource Development and Management, includes no degree programs at the present time. Included, however, is the department's emphasis on student activities as a means for student development, including the Agricultural Education Society, the Agricultural Communicators of Tomorrow, and the Agricultural Education Graduate Student Council. Courses in the area of leadership development and volunteerism as included, as well as a youth program management program at the master's level which is on the drawing board.

Research in the component includes organizational theory, leadership and volunteerism (tied closely to extension programming), vocational administration, and higher education administration. The service area includes working with 4-H and FFA, international development, and related workshops and activities.

Communication

The teaching area of the Communication component includes the B.S. in Agriculture with a major in agricultural communication. In addition, that section includes additional courses taught, outside the major, in writing and oral expression. The communication emphasis in the M.S. completes the teaching area.

The research program encompasses technology and systems development and dissemination as well as communication strategy. As a relatively new area of inquiry in higher education and the department, this research section is being developed currently. The service activities have not been fully implemented but include work with the many national and state professional associations in agricultural communication in addition to workshops within the university setting.

Research Methodology and Data Analysis

The fourth component of the model is Research Methodology and Data Analysis. The ties to the basic teaching/learning premise are less clear but important. The component emphasizes social science research, an area unavailable in other parts of the university. No degree programs are offered in this component. The teaching area includes an undergraduate course on data analysis and a five-course series on quantitative methodology and analysis at the graduate level. A qualitative methodology course is anticipated in the future.

There is no research activity in this component. Faculty in the department do not have a research agenda related to research methodology; that is probably best left to the research and statistics theorists. The service activities include workshops in research methodology offered to various client groups.

Summary

Agricultural education takes on different appearances in different institutions. The proposed model should help administrators and others outside the discipline to grasp a clearer picture of the mission and importance of the program. The model more closely approximates how other departments in agriculture view their mission, not by setting or degree but by subdiscipline. Eventually, faculty may be employed on the basis of their teaching and research area instead of their work experience. By communicating in terms that others understand, the teaching/learning mission should be able to grow and prosper.

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