

schedule, with each group session beginning and ending at uniform times.

Another concern was that State Officers managing the program were not adequately trained to deal with the younger students. To better prepare them, the officers will receive additional training to deal with the cognitive, affective and psychomotor development of Junior FFA members. Additionally, several people with elementary teaching experience or training will be involved to assist the group leaders with students during the activities.

Changes to the program are also being made. It was suggested the program focus less on recreation activities. Too much effort was made to make the program fun and physically entertaining and not enough effort was spent dealing with educational or goal setting activities. Next year the program will incorporate entertainment and recreation, but will focus on helping Junior FFA members achieve a balanced approach to life through experiential hands-on activities.

MORE POWER!!! [GRUNT, GRUNT] ANOTHER TOOL FOR THE PRE-SERVICE TOOLBOX

Edward Franklin
Oklahoma State University

Introduction

Pre-service teacher education students are introduced to and encouraged to develop a wide array of teaching tools to add to their instructional arsenal. Due to the diversity of our curriculum, variability of delivery methods is essential to the success of student learning.

Educational reform initiatives (A Nation at Risk, 1983; The Unfinished Agenda, 1984) have called for educators to develop methods for students to learn more effectively and efficiently. Responding to the need of increasing “science literacy”, agricultural education accepted the challenge of integrating science concepts into the agriculture classroom. However, adopting to change has been a slow process. Whent (1992) reported that agriculture teachers were reluctant to adopting the concept of science integration into existing agriculture programs for fear of threatening the program. Although Thompson (1998) recommended that undergraduate students should receive instruction on how to integrate science into the agriculture classroom. The National FFA Organization has recognized the importance of agriscience and has adopted programs to promote scientific agriculture in secondary agricultural education (Duval, 1988).

The agriscience fair as a career development event has gained acceptance in various states and at the national level. This activity recognizes students studying the application of scientific principles and new technologies. To reach the national level, students must participate at the state level.

Methodology

Idea of conducting a state level Agri-Science Fair at the Oklahoma State FFA Convention was discussed with approved by the state FFA advisor. A service-learning grant was obtained to provide funding for the project to cover the costs of duplicating fliers, and entry information, mailing expenses, travel, and awards. Lab time was dedicated to teaching the concept of integrating agriscience activities into the traditional agriculture classroom. The agriscience fair activity was introduced to the students and their role and participation was presented. Pre-service students enrolled in AGED 3203 would serve to mentor high school students interested in developing an agriscience project. A web page was developed to provide information and ideas to agriculture teachers and FFA members. Two high school agriculture programs accepted an invitation to have AGED 3203 students visit their classes and conduct presentations on developing agriscience fair activities. The national FFA guidelines were adopted for the state level competition. Entry forms and guidelines were mailed out to all agriculture programs in the state. Service learning funds paid for transportation costs, printing & postage and awards. AGED 3203 students practiced developing their own topics into agriscience fair activities utilizing the steps of scientific investigation. Presentations were made during lab times and peer evaluations were conducted. A web page was created with various links to existing science fair sites to provide ideas and answer questions.

Results

Eight student entries were received. As a part of their final exam activity, AGED 3203 students interviewed each agriscience fair participant and evaluated the seven displays. As a follow up, all AGED 3203 students prepared reflection papers describing the individual entries and their strengths and weaknesses. Suggestions for improving each research project were solicited as well as methods for individual future teachers to integrate such an activity into their own agriculture programs. FFA participants were presented with plaques during a special session of the state convention. 38 agriculture teachers attended a workshop for developing agri-science fair projects during the 1999 summer conference for agricultural education instructors. The activity will be continued as regular career development event for the Oklahoma State FFA Association. Six Oklahoma entrees competed at the national agriscience fair at the National FFA Convention in Louisville, Kentucky. Four entries from Oklahoma placed in the top three of their respective categories and divisions.

Implications

Agricultural education teacher training institutions should look to adopt the agriscience fair activity or offer to conduct it for their state associations and utilize it as an experiential activity for pre-service training of future agriculture educators. What better way to train a future teacher to prepare students for such an activity than to immerse them into the process of organizing, conducting and evaluating a university-sponsored event.

Future Plans

The state association and the university agricultural education department plan to continue to conduct the agriscience fair as part of the state FFA convention activities. Efforts to secure external funding for award sponsorship to provide assistance for student travel to the National FFA Convention and the national Agriscience Fair are underway.

References

- Duval , C.L. (1988, November). The agriscience movement. *The Agricultural Education Magazine*, 61 (5), 18-19.
- National Commission on Excellence in Education. (1983). *A nation at risk: the imperative for education reform*. David P. Gardner (Chair). Washington, DC: U.S. Department of Education.
- Thompson, Greg (1998) Implications of integrating science in secondary agricultural education programs. *Journal of Agricultural Education*, 39 (4), 76-85.
- Whent, L. (1992). Bridging the gap between agricultural and science education. *The Agricultural Education Magazine*, 65 (4), 6-8.
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INTEGRATING ANIMAL SCIENCE COURSES IN HIGH SCHOOL AGRICULTURAL EDUCATION PROGRAMS IN NORTH CAROLINA

Jerry D. Gibson
North Carolina State University
Steve Matthis
Sampson Community College
Lanny Hass
North Carolina Cooperative Extension

The National Research Council (1988) revealed that much of the curriculum in agricultural education was outdated. In 1995 a survey was conducted by agricultural teachers in North Carolina to ascertain what new courses they would like to see offered in high school agricultural education programs. A series of animal science courses was selected and ranked on top as to the perceived courses to be added to the program of study.

A cross section of educational professionals was assembled in 1996 to begin developing competencies and objectives for animal science (1), animal science (2), and equine science. The committee consisted of agriculture teachers, extension agents, university faculty members from animal science, agricultural education, and agribusiness.

The Agricultural Education Team from the Department of Agricultural and Extension Education at North Carolina State University released curriculum course outlines, blueprints and competency-based evaluation test item banks in the Fall of 1998. Currently there are more than 200 high schools offering animal science in North Carolina with many more making plans to pursue this specialty area.

Purpose and Objectives

Animal science is vital to the food chain for all people and affects agribusiness as well as technology. In North Carolina the farm income as reported by the North Carolina Department of Agriculture is a billion-dollar industry. Swine production is ranked 2nd in the nation, turkey production is ranked 1st, dairy is in the top 10 and the equine industry is enjoying tremendous growth.

The purpose of this project is to prepare educators who are interested in developing new courses or programs of study for high school agricultural programs. It is designed to provide opportunities for sharing existing course outlines, blueprints and competencies with fellow educators; develop specific educational objectives for agri-science programs; develop a delivery method utilizing multimedia instruction; improve collaboration between extension agents and high school agriculture teachers; and finally, to develop competency-based measures for students, teachers, state department specialists, and university faculty.