

videotape. Many expressed a feeling of uneasiness during the interview. Seventy percent recalled feeling nervous and uncomfortable and thought this had been obvious to the interviewer. These feelings of uneasiness were perceived as an inhibiting factor which created difficulty as they tried to present themselves in a positive way.

In general, the ratings of appearance were about 20 points higher than the ratings for conversation or verbal skills. This apparent lack of verbal proficiency may possibly be attributed to inexperience in interviewing and the anxiety that resulted from a feeling of incompetence.

Another general observation was that eye contact with the interviewer needed to be improved. Other distracting gestures and undesirable non-verbal traits, for example frequent crossing and uncrossing of legs and jerking foot motion, were obvious during replay. There was an agreement, among the subjects, that such negative, silent cues could distract the interviewer and jeopardize interviewing success.

The average rating by peers after replay of the tapes was 33 points. This indicated a slightly higher peer-review when compared to self-appraisal whether before or after replay. The students' ability to give accurate, appropriate feedback to their peers has been questioned in other studies (Scott, Sollie and Duffey (1983) and Sollie and Scott (1983)). With few exceptions, the ratings of the three interviewers ranged from 10 to 15 points lower than those of the students, whether done by self or by peers. As mentioned earlier, it is not easy to see ourselves as others see us; objective self-evaluation requires deliberate effort and practice.

Although the t-test indicated significant change in self-evaluations after replay of videotapes, the question whether replay can increase self-awareness and thereby create the possibility of improved communication skills remains unanswered. Agreement is with Scott, Sollie, and Duffey (1983) as they point to the need for further examination before any conclusions can be drawn regarding the effectiveness of videofeedback in changing behavior or increasing skills of university students.

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A TESTED MODEL

Recruitment Program

Richard F. Welton

Abstract

Although developed for the recruitment of agricultural education students, this tested model can provide ideas on effective activity in recruiting students for other disciplines in Agriculture.

Introduction

Enrollment of undergraduate students in colleges of agriculture has shown a dramatic decrease in recent years. The consequences of this decline is effecting the availability of trained agriculturists. While declining enrollment is a recent phenomenon in colleges of agriculture, the shortage of agricultural education graduates has existed for some time. This shortage has been called one of the most far reaching problems nationally for agricultural education.

A lack of qualified vocational agriculture teachers in Kansas prompted the agricultural staff at Kansas State University to become actively involved in an effort to expand the undergraduate program. Major recruitment activities began with a project funded by the College of Education. This study became the cornerstone for planning and organizing departmental efforts to attract students into agricultural education.

Procedures

The study was based upon information provided by teacher educators in the Central Region and agricultural education students enrolled at Kansas State University. Responses were received from 121 of the 134 persons contacted. This represents a response rate of 90 per cent.

Welton is a professor in Agricultural Education at Kansas State University. The study reported was funded by the College of Education at Kansas State University. Additional monies to support recruitment activities came from the Kansas State Department of Education.

Purpose

The major purpose of this study was to develop guidelines for a recruitment program in agricultural education. Answers to the following questions were sought:

1. When do students choose agricultural education as their major?
2. What methods of recruiting prospective teachers of vocational agriculture are used by agricultural educators and how do they rate these recruitment practices?
3. How do the recruitment practices believed by agricultural educators to be most successful compare with similar practices believed to be successful by agricultural education students?
4. To what extent do selected factors and people influence university students enrolled in agricultural education in their choice of curriculum?

Major Findings

Time in Life Students Choose Major

Teacher educators and students generally agreed there is no single time period when the decision is made to choose their major (Table 1). The choice is made at varying times during high school, between high school graduation and entering college, and during college. It is interesting to note that nearly 57 per cent of the students indicated their career choice was made during college.

Recruiting Practices

Teacher educators utilized a variety of practices in recruiting students. Including recruiting brochures, a personal letter from and an interview with an agricultural education professor, and group presentations. A teaching unit on career opportunities was the least used practice.

Effective Recruiting Practices

Students ranked a personal interview by an agricultural education professor as the most effective activity. The next most influential practices, according to students, were tours of the university and agricultural education department and a teaching unit on opportunities in agricultural education. The greatest variability between teacher educator and student perceptions of recruiting practices was shown for a teaching unit and a personal letter. Students ranked a teaching unit higher (second) than teacher educators (sixth). Teacher educators viewed a personal letter as more effective (first) than did students (sixth). Both students and teacher educators ranked news media, form letters, and displays and bulletin boards as being the least effective in recruiting.

Factors Influencing Students' Choice of Curriculum

Experience in high school vocational agriculture and FFA were ranked as the two most influential factors by both educators and students. Other factors considered effective by students were work experience and publications dealing with careers. The only notable

Table 1. Time Students Choose Agricultural Education as Their Major as Reported by Teacher Educators and Students

Time in Life	Teacher Educators		Students	
	No.	%	No.	%
Before high school	0	0	0	0
During high school	7	36.8	27	26.5
After high school, but before college	2	10.5	11	10.8
As a college freshman	2	10.5	15	14.7
As a college sophomore	3	15.8	31	30.4
As a college junior	1	5.3	11	10.8
As a college senior	0	0	1	1.0
Other	2	10.5	4	3.9
No response	2	10.5	2	2.0
Totals	19	100.0	102	100.0

discrepancy in teacher educator and student perceptions was employment experience. Students ranked employment experience higher (third) than teacher educators (sixth). Educators and students agreed that high school courses other than vocational agriculture were the least influential factors.

People Influencing Students' Choice of Curriculum

Educators and students concurred that the vocational agriculture teacher was the most influential person in their curriculum choice; however, students indicated college professors to be equally as influential as the vocational agriculture teacher. Teacher educators rated their influence behind parents (second) and friends (third). Students ranked the influence of parents third and friends fourth.

Guidelines

The findings of the study became the basis for guidelines in recruitment. These guidelines were developed as a means of providing a systematic approach to recruitment in agricultural education at Kansas State University.

1. A recruiting program should be developed with an individual assigned the responsibility of coordination;
2. A program of recruiting activities should be developed and coordinated;
3. An occupational information kit should be developed and distributed to high school vocational agriculture departments, community college agriculture program coordinators, and high school guidance counselors;
4. A teaching unit on career opportunities should be developed for use by high school vocational agriculture and post-secondary agriculture teachers;
5. A recruitment brochure should be developed to supplement the career opportunity information being provided by the College of Agriculture;
6. Teachers of vocational agriculture should be made aware of the key role they play in encouraging students to choose agricultural education as a major;

7. Vocational agriculture teachers should be encouraged to utilize interested students as teacher aides, laboratory assistants, tutors, and FFA judging team coaches;
8. Efforts should be made to recruit agricultural students from community colleges;
9. Prospective students should be encouraged to tour the university campus and agricultural education facilities;
10. Teacher educators should interview prospective agricultural education students whenever possible;
11. Interviews should include high school vocational agriculture students, agriculture students in community colleges, and university students enrolled in agriculture who have not declared a major;
12. Recruitment activities should be designed that will make contact with prospective agricultural education students at various times in their educational training;
13. Literature concerning career opportunities in agricultural education should be distributed to parents of prospective teachers;
14. Form letters and news media should be used only as a last resort and when other recruiting practices have not provided expected results.

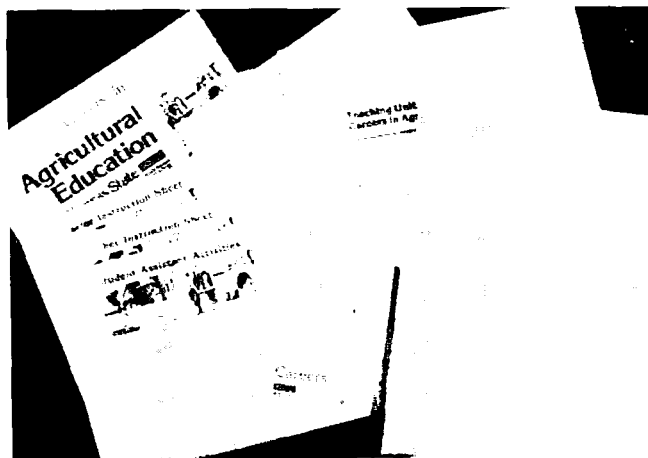
Recruitment Program

The probability of full implementing a recruitment program seemed unlikely without additional resources. These resources were received from the Kansas State Department of Education. The primary thrust of these activities was to develop: 1) a recruitment program of activities; 2) an information kit for careers in agricultural education; and 3) a teaching unit on career opportunities in agricultural education.

The project staff received valuable assistance from a special task force on recruitment. This group consisted of eleven persons with representation from the Kansas State Department of Education, the Kansas Vocational Agriculture Teachers Association (secondary and post-secondary), agribusiness, the agricultural news media, agricultural education students (undergraduate and graduate), the Kansas FFA and Alumni Associations, and the Colleges of Education and Agriculture.

Program of Activities

The program of activities was designed to involve all segments of agricultural education in the state. Those individuals and organizations involved in addition to the agricultural education staff were the Agricultural Education Club, Alpha Tau Alpha, agricultural mechanization staff, agricultural education graduate teaching assistants, FFA Executive Secretary, the state FFA Association officers, state supervisor, and the Kansas Vocational Agriculture Teachers Association.



Information Kit

The "Careers in Agriculture Education Information Kit" was designed for use by agriculture teachers (high school and post-secondary) and high school guidance counselors. Each vocational agriculture department and post-secondary agriculture program in the state received a kit. To reach beyond students enrolled in vocational agriculture and post-secondary agriculture programs, guidance counselors in high schools without vocational agriculture programs also received the career packet.

Each information kit contained an **instruction sheet** for a teacher or a counselor. The basic function of this document was to explain the contents of the packet along with directions on how each item in the packet could be used. Instructions for the agriculture teachers stressed their role and responsibility in exerting a positive influence for agricultural education.

Included in the kit was a **poster** for display. The benefits of a career in agricultural education were highlighted. Interested students could mail a tear-off card for more specific information.

An agricultural education career **guide** from the College of Agriculture and a pocket-size career **guide** were also a part of each packet. The College of Agriculture guide describes agricultural education in general and explains the curriculum and teaching options available. The pocket-size guide was designed to aid a student in making a decision about a career in agricultural education.

A list of **student assistant activities** was also provided for agriculture teachers. One of the frequently stated reasons by teachers for leaving the profession is that teaching requires too much time. One possible way to lessen this problem is the use of student assistants. Employment experience was also rated very high by students as an influencing factor in a curriculum choice.

The agriculture teachers' kit also contained a **Teaching Unit for Careers in Agricultural Education**. The unit included: 1) objectives; 2) suggested activities for the instructor and students; 3) information sheets; 4) assignments; 5) tests; 6) answers to tests; and 7) transparency masters. Also contained in the unit was

a listing of available agricultural education and agriculture scholarships at Kansas State University. Provisions have been made to prepare an annual "Teaching Unit Up-Date."

Summary

The recruitment efforts described are having a positive effect on the undergraduate enrollment in the agricultural education program at Kansas State University. This recruitment is based on a plan that:

1. Collected data from undergraduate students and teacher educators on effective recruiting practices;
2. Assigned responsibility for coordinating recruitment activities;
3. Enlisted advice from the agriculture and education communities of the state;

4. Involved the total agricultural education resources of the state;
5. Stressed the key role vocational agriculture teachers play in influencing student career choice;
6. Developed a program of activities to aid in an organized and systematic approach
7. Provided vocational agriculture teachers and guidance counselors with an information kit on careers.

These recruitment activities represent what has been done in one state to attract additional students into an undergraduate curriculum in the College of Agriculture. This approach might be useful in initiating, redirecting, or extensifying student recruitment in other curriculums in Colleges.

Teaching Strategies for Developing Psychomotor Skills

Ed Osborne

Much has been written over the years concerning the appropriate balance of knowledge and practical skills taught in four year college and university agricultural programs. Estimates that more than one-half of the students enrolled in today's agricultural colleges have no experience in agricultural production clearly indicate the need for practical experience as a part of the college program (Berkey, 1981). While the teaching of agricultural principles should provide the necessary foundation for students to move forward, "...the best learning results in an interplay between theory and experience, idea and application, reflection and encounter" (Keeton, 1983, p.2). John Dewey (1969), one of America's greatest educational philosophers, described the relationship between actual experience and education as an "intimate and necessary" one.

Colleges of agriculture in general have exercised their support of theory plus experience by providing structured experiences in skill development during laboratory and classroom sessions. But what are the most effective ways that psychomotor, or manipulative, skills may be developed? What teacher behaviors and practices tend to result in higher student proficiency in propagating plants, shearing sheep, or adjusting a combine? This article will attempt to provide a review of research and theory pertaining to effective instructional activities aimed at developing psychomotor skills.

How Skills Are Learned

In his classic book entitled *Permanent Learning* Lancelot (1944) proposed that manipulative skill

development requires a blending of the mind and muscle. He further explained that manipulative acts are guided by thought, and that a direct relationship exists between the quality of thought and the quality of manipulative performance. Watson (1980) agreed that psychomotor skill development involves both muscle and thinking skills. According to Watson, psychomotor skills are acquired through a three stage process: (1) early cognitive - usually of short duration and includes attention, observation, and thought about how and why the skill is performed, (2) lengthy practice or fixation - includes practice sessions aimed at shaping correct performance, and (3) final autonomous stage - correct performance becomes automatic, with increases in speed, accuracy, dexterity, timing, and greater understanding of application settings. Unfortunately, college students do not always reach the final autonomous stage. However, advanced stages of the skill acquisition process are often attainable.

Psychomotor Skill Variables

This section synthesizes empirically based conclusions, as well as relevant theory, regarding the processes of psychomotor skill development. The variables to be contained in this discussion include: (1) motivation, (2) demonstrations, (3) physical practice, (4) mental practice, and (5) feedback/knowledge of results.

Motivation

A student's motivation has a positive influence on the development of psychomotor skills (Dull, 1977). Dewey (1969) maintained that, if experiences were to be educational, they must account for the principle of puzzlement or indeterminacy. That is, the major step in the teaching process is to create an atmosphere of confusion or perplexity in the student's minds about the problem (skill) at hand. From a review of research studies Watson (1980) presented the following strategies for increasing motivation: (1) use a variety of

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