

Relationships Between Educational Experiences of Vocational Agriculture Students and Their Enrolling in a College of Agriculture

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Introduction

It is well-known that rural youth are in "surplus" for on-farm work, while the shortage of professionally trained agriculturists is acute. Few youth now living on farms will find an opportunity to farm. In 1964 Venn⁶ stated that only one of two youths now living on farms will farm in 1970. Schultz⁴ wrote in 1966, "Schools of agriculture are now graduating something over 9,000 trained persons per year, and it is estimated there are about 15,000 jobs available yearly for such persons in agriculture and food." Other regional and national surveys also indicate at least two jobs for each professionally trained agriculturist.

Enrollment in the College of Agriculture at Kansas State University decreased from 1375 in 1948 to 675 in 1963. The literature carries reports of the relatively smaller percentage of farm youth, compared to city youth, who get to college. Only 32 percent of rural farm youth compared with 51 percent of urban youth plan to attend college.²

Do certain educational experiences of certain vocational agriculture students tend to be significantly related to their later enrolling in a College of Agriculture? Sahlstrom³, in a somewhat related study, found that the student's academic rank in high school was an important factor affecting a student's decision to attend college or not. Also, the advice of high school counselors and instructors was a highly significant factor. Harden¹ compared 244 high schools, half offering and half not offering Vocational Agriculture. Fifty-eight seniors from schools offering Vocational Agriculture planned to enter an agricultural college compared with 19 from schools not offering Vocational Agriculture. The literature is void on studies of certain educational experiences correlating with students enrolling in Colleges of Agriculture.

Methods

Information for this study was collected from:

1. Records in the Admissions and Records Office at Kansas State University;
2. Files in the office of the State Supervisor for Vocational Agriculture in Topeka, Kansas;
3. A file of the Secretary of the Kansas Vocational Agriculture Teachers' Association and
4. Completed questionnaires returned from selected vocational agriculture teachers.

All vocational agriculture teachers in Kansas who were teaching during the spring of 1967 and who had been located in the same school the previous three years were included. Only those who had stayed in the same school four years were used to minimize the possible influence of other vocational agriculture teachers not surveyed. Eighty teachers constituted the study population.

Areas of inquiry included educational visits of vocational agriculture teachers and their students to Kansas State University (the State's Agricultural College), contacts with vocational agriculture teachers and their students by College of Agriculture faculty and college students off campus, usually in high schools; specific numbers of students graduating in the local high schools who had taken certain subjects; certain teaching techniques or procedures; and, finally, the vocational agriculture teacher's educational degree level. Only items, like the preceding ones, which were not available from the other sources, were included in the questionnaire mailed to all 80

teachers studied. In considering respondent data, it was assumed that what a teacher does with and for his classes somewhat reflects his attitude. If he believed chances abounded for a farm youth to be employed in occupations requiring a college degree, he probably would use various means to communicate such thinking in his teaching and related activities.

Sixty-eight of the 80 questionnaires were usable.

Pearson's index of dispersion denoted by chi-square and Snedecor's⁵ table of probable occurrence in sampling were used to analyze the data.

Areas of inquiry in addition to those previously listed above included major FFA leadership activities of high school students' and the professional improvement activities of teachers. All areas were compared with percentages of students at given high schools attending the College of Agriculture.

Statistical tests were made of 325 combinations of comparisons. Degrees of freedom varied from 1 to 27, depending on the number of groups in items compared.

Summary of Tests on Educational Activities and Percentages of Students Attending the College of Agriculture.

Participation in certain educational activities on the campus by vocational agriculture teachers and students was compared with the percentage of students from those high schools attending the College of Agriculture. If the particular campus functions were checked at least once in the three years studied, the teacher's response was considered in affirmative. Attendance or participation in these activities was not significantly ($P < .05$) related to students attending college;

1. Visited agricultural faculty on campus,
2. Engineers' Open House,
3. Veterinary Medicine Open House,
4. Agricultural Science Day,
5. Practice Judging.

Participation in the State High School Agricultural and Farm Mechanics contests was the only on-campus activity significantly related to a student later enrolling in the College of Agriculture.

None of the Activities regarding faculty and college students' visits to high schools was significantly related to attending the College of Agriculture. Those activities included:

1. Participating in area conferences of vocational agricultural teachers;
2. College of Agriculture faculty speaking at FFA banquets and other meetings, and
3. College students talking to high school FFA groups.

The only significant activity included under teaching procedure was the posting of scholarship records of vocational agriculture students' in the classroom at the end of each grading period.

Items not significantly related included:

1. Vocational agriculture teacher taught adult classes;
2. Net worth of high school students' supervised farming programs;
3. Vocational agriculture teacher taught lessons on careers in professional agriculture;
4. Teachers displayed College of Agriculture departmental brochures in their classrooms;
5. Teachers used Kansas Agricultural Experiment Station bulletins regularly in teaching;
6. Teachers visited with students' parents about their sons attending college;
7. The manner (individually or in groups) in which visits with

parents were made, and

8. High School counselor spoke to vocational agriculture classes about fields related to agriculture. Neither was degree level of teachers studied significantly related.

Responses of the teachers to the question, "Have they (counselors, parents, principals, etc.) sufficient information upon which to base such (educational plans) counsel?", were equally divided; 13 "yes", 14 "no", and 17 "undecided."

Several items not directly related to attending college showed significant differences. Teachers with M. S. degrees tended to take vocational agriculture students to the campus to visit agricultural faculty at a significantly higher rate than did teachers with B. S. degrees. Vocational agriculture teachers who invited College of Agriculture students to talk to high school agriculture classes also took vocational agricultural students to the campus to visit with agricultural faculty significantly more than teachers who did not use college students in their high school classes. Many educational functions involving travel away from the local high school were significantly related to each other. For example, teachers who attended the State FFA Camp also attended the Veterinary Medicine Open House. Those who attended the State FFA Camp also attended the National FFA Convention. Those who attended the State FFA Camp also attended the State Judging Contests. Those who attended the Veterinary Medicine Open House also attended the Engineers' Open House.

Teachers who attended Agricultural Science Day also visited parents on the subject of their sons attending college at a significantly higher level than teachers not attending Agricultural Science Day. Teachers with M. S. degrees visited students' parents about their sons attending college more than did teachers with B. S. degrees and those with M. S. degrees tended to invite significantly more Kansas State University Students to talk to high school vocational agriculture classes. Teachers who visited with parents most about their sons attending college also tended to post scholarship records in their classrooms.

Use of Kansas Agriculture Experiment Station bulletins in classrooms and visits to students' parents about their sons attending college were negatively related. Net worth of farming programs was significantly related to adult classes – the greater the net worth, the more classes.

Twenty different suggestions for improving teachers' and other adults' counsel to students on educational plans were listed by the teachers – these three most frequently:

1. More up-to-date information needed on specific opportunities in agriculturally related fields;
2. People involved (counselors, principals, and others) should study opportunities more, and
3. Educate parents on counseling children in educational opportunities in agriculture.

Conclusions

Data reported in this study support the following conclusions:

1. Most agricultural functions on the Kansas State University campus commonly used to communicate career and education opportunities seem not to attract students to the College of Agriculture.
2. The State Agricultural and Farm Mechanics Judging contests held annually on the Kansas State University campus may be the most important on-campus function in the College of Agriculture for attracting students.
3. As recruiting devices, the College of Agriculture Open House and other similar functions are questionable.
4. Most selected vocational agriculture teaching techniques

expected to be closely related to students' decisions to attend the College of Agriculture, individually, seemed to have little, if any, influence.

5. If posting scholarship records is a reflection of teachers' attitudes toward academic excellence or an incentive for students to recognize their capacities for educational growth, this activity may have inferences related to the student's reason for attending an agricultural college.

6. Training in FFA leadership develops individual self-confidence and encourages students to excel but seems not to contribute substantially to a student's enrolling in the College of Agriculture.

7. Net worth of vocational agriculture supervised farming programs does not seem to contribute to a student's attending the College of Agriculture.

8. Academic degree level of vocational agriculture teachers appears not to contribute to their students choosing to attend the College of Agriculture.

9. Local high school functions in which agriculture faculty and students from the college participate do not appear to be materially related to high school students' decisions to enroll in the College of Agriculture immediately after high school graduation.

10. Vocational agriculture teachers with masters degrees tend to make more use of College faculty in various ways and tend to be more conversant with parents regarding the value of a college education than are teachers with bachelor degrees.

11. Some vocational agriculture teachers desire more up-to-date information on specific opportunities in agriculturally related fields and they tend to believe counselors, parents and others should be more fully informed in the same areas.

Recommendations.

1. Since professional agriculturalists are in short supply, efforts must be made to fill the demand. This study did not clearly identify many factors that contribute to increasing enrollment in a College of Agriculture, so other research that defines functional activities is necessary.

2. Farmers' children should not continue to be among the lowest in percentage attending college, especially since so few will be able to remain on farms. Means of encouraging them to attend college should be determined and applied.

3. On-campus activities intended to encourage students to attend colleges of agriculture should be examined and possibly altered if recruiting is a major objective.

4. Agricultural teacher educators and other agriculture faculty must search in their teaching, research and extension activities for ways to attract and hold students if agriculturists are to be provided for available positions.

5. Particular attention should be given by Kansas vocational agriculture teachers to making each of their high school students aware of the many available opportunities in the farm-related professional fields.

6. Teachers who have not participated in the State Judging and Farm Mechanics contests should be encouraged to consider the possible direct and indirect educational values and give opportunities for their students to enter one or more of these competitive areas.

7. Teacher training programs should demonstrate and emphasize various techniques for recognizing student academic success and other desirable accomplishments.

¹Harden, Keith H. "A Study of the High School Vocational Agriculture Department as a Factor in Educational Guidance," *The Agricultural Education Magazine*, 11:175, March, 1939.

²Lee, Beatrice Crump. "College Attendance and Youth," *NEA Research Bulletin*, 40:60, May, 1962.

³Sahlstrom, Stanley David. "Factors Influencing College Attendance Plans of Capable Rural High School Seniors." Unpublished Doctoral Thesis, The University of Minnesota, 1961.

⁴Schultz, H. W. "Education for 500 Careers," *Protecting Our Food*, p. 236. *The Yearbook of Agriculture*, House Document Number 349. Washington: Government Printing Office, 1966.

⁵Snedecor, George W. *Statistical Methods*. Ames: The Iowa State University Press, 1962.

⁶Venn, Grant. *Man, Education and Work*. Washington: American Council on Education, 1964.

