Summary and Conclusion

Microcomputers are used as computational apparatuses and instructional aids for a newly developed agricultural economics undergraduate quantitative methods course. Microcomputer training is provided for the students to effectively and realistically implement the quantitative concepts commonly used in undergraduate level agricultural economics courses. The more general objective of computer literacy and productive on-the-job use of microcomputers can be attained as a useful side-product if the proper software and instructional material is used.

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An Assessment of Student Recruitment Activities by Departments of Poultry and/or Animal Sciences

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Introduction

The Joint Council on Food and Agricultural Sciences (1984d) has forecast an impending shortage of highly qualified scientists, managers and technical professionals. The number of highly capable students enrolled in advance degree programs in basic agricultural science disciplines is insufficient to meet these future needs for scientific expertise in agriculture since agriculture must compete with other scientific and technical disciplines for the limited number of high quality students with strong scientific preparation. Moreover, enrollments in Colleges of Agriculture at land grant universities have declined 20% since 1980 (Joint Council on Food and Agricultural Sciences, 1984c). This decline can be attributed to two areas of concern: 1) a decline in the traditional college-age population, and 2) the failure of agriculture to compete with other professions in attracting students.

One result of decline in student enrollment in agriculture combined with a shortage of human resources in agriculture is a renewed interest in student recruitment. Increased emphasis has been placed on attracting academically outstanding students into food and agricultural sciences degree programs. The professional nature of agricultural careers needs to be emphasized in order for prospective students to evaluate agriculture along with other professional disciplines (Joint Council on Food and Agricultural sciences, 1984a). In addition, an increased proportion of the education resources in agriculture needs to be directed to student recruitment activities (Joint Council on Food and Agricultural Sciences, 1984b).

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In view of the increased interest in student recruitment in agriculture, a survey of Departments of Poultry Science and/or Animal Sciences was conducted to determine current recruitment activities in the field of Poultry Science. The objectives of this survey were to access student recruitment activities and to determine the allocation of resources for student recruitment activities at these departments. In addition, present student enrollments and trends in enrollment in poultry programs at the responding departments were determined.

Materials and Methods

A self-administered questionnaire was constructed to evaluate the student recruitment activities of Departments of Poultry Sciences and/or Animal Sciences. The questionnaire, with an explanatory cover letter and return self-addressed envelope, was sent to 61 Departments of Poultry Science and/or Animal Sciences in the United States and Canada (Anonymous, 1984). A 72% response rate was achieved by this survey. The data from the returned questionnaires were summarized and expressed by a percentage of respondents.

Results and Discussion

Eighty-two percent of the respondents indicated that their departments were actively engaged in student recruitment activities. Fifty-two percent of the respondents indicated that undergraduate student recruitment was of the highest priority. Twenty-six percent of the respondents felt that graduate student recruitment was of the highest priority and 22% indicated that they were equal.

The types of recruitment materials utilized are indicated in Table 1. Pamphlets, display boards and slide presentations were the three most popular forms of media. Only 8 respondents used video cassettes. This lack of adaptation of the video media is disturbing in view of the fact that today's college-age audience has been raised as an action oriented, visually stimulated

Table 1. Recruitment materials utilized by Departments of Poultry Science and/or Animal Sciences.

Type of material	Percent of respondents
Pamphlets	89
Display boards	48
Slide presentations	43
Video cassettes	18
Posters	16

Table 2. Student recruitment activities used by Departments of Poultry Science and/or Animal Sciences

Activity	Percent of respondents
High school student visits to campus	82
Student contacts through FFA and 4H	82
Student referrals through county agents	66
Contacts with junior colleges or community colleges	57
Mailings to high school students	55
High school visits	50
Displays at county and state fairs	46
Presentations to high school guidance counselors	39
Other (refer to Table 3)	50

Table 3. Student recruitment activities listed under the heading of "other" in Table 2

Activity	Number of respondents
Career day	2
Recruitment of undecided and disillusioned students	2
Contact and referrals from poultry industry	2
Scholarships	2
Referrals through office of admissions	1
Individual contact with faculty	1
Student employment within department	1
Use extension specialist for recruitment	1
Summer employment of high school teachers in laboratories	1
BBQ for high school counselors	1
Direct mailings to science teachers	1
Animal science youth workshops	1
Open house for students accepted at university	1
Invite counselors and science teachers to attend county poultry meetings	1

Table 4. The most effective activities for undergraduate student recruitment

Activity	Percent of respondents
Direct contact with students and parents	26
Student contacts through FFA and 4H	17
Visits to high schools	13
Other	38
No response	11

generation for whom television and video games have become the norm. This limited use of video may be attributed to the cost of production and time requirements for producing high quality videos. In addition, the departments may be unfamiliar with video and therefore rely on the more traditional medias such as pamphlets and 2x2 slides.

Respondents were asked to indicate which student recruitment activities they participated in. Eighty-two percent of the respondents indicated that they participated in high school students' visits to campus and utilized FFA and 4H for student contacts (Table 2). Student referrals through county agents were indicated by 66% of the responding departments. Fifty percent of the respondents indicated that they participated in some other type of student recruitment activity. This high percentage of involvement in other activities reflects the individual department's ability to adapt their recruitment to local conditions. Student recruitment activities listed under the heading "other" are presented in Table 3. Career Days, recruitment of undecided students, referrals from the poultry industry and offers of scholarships were the most popular activities. A review of the activities listed in Table 3 illustrates the ability of the departments to adapt their programs to their particular activity. However, these activities can and should be shared and adapted by other departments to fortify their recruitment efforts.

The respondent's perception of the effectiveness of various activities for undergraduate student recruitment is presented in Table 4. Direct contact with students and parents, and student contact through FFA and 4H, were listed, 26 and 17% respectively, as the most effective tool. As previously mentioned 82% of the respondents indicated that they participated in these activities; however, only 26% of the respondents felt that these were the most effective recruitment activities. This indicates that many departments are participating in activities that they may not feel are effective. In addition, there is considerable variation among the respondents on what activities are effective. This lack of agreement concerning the most effective recruitment activity for undergraduate students may be due to the individuality of student recruitment programs based on geographical and local conditions, or it may be a reflection of the lack of knowledge which may exist about effective student recruitment techniques.

The respondents indicated that contacts with other universities, the reputation of the faculty and faculty contact with students played an important role in the recruitment of graduate students. Graduate education is more of an individually oriented program with a special bond between faculty and student; therefore, effective recruitment of graduate students should include the personal contact that this data indicates. Only 8 of the respondents indicated that assistantships were effective in the recruitment of graduate students. Alternate methods for providing financial support of graduate students need to be developed in order to attract quality students into graduate programs. The Joint Council on Food and Agricultural Sciences (1984b) has recommended the development of competitive graduate fellowship programs in agriculture to attract these highly qualified students.

A majority of the departments are involved in student recruitment. The degree to which they are committed to student recruitment can be assessed by the allocation of resources for these activities. These resources include the involvement of faculty and department head and the allocation of funds.

Thirty-two of the responding department heads spend less than 5% of their time on recruitment ac-

tivities. Only two department heads indicated that 15 to 20% of their time was involved in student recruitment. The involvement of faculty in student recruitment is presented in Table 5. This data illustrates a lack of involvement in student recruitment activities by the faculty of the responding Departments of Poultry Science or Animal Sciences. Of the responding departments, 33 indicated that less than 25% of their faculty were involved in recruitment. Only 2 of the respondents indicated a 100% involvement of their faculty.

The allocation of monetary resources to recruitment activities is another indicator of commitment to student recruitment. Fifty-eight percent of the respondents allocate 1% or less of their academic budget to student recruitment activities. No allocation of funds were reported by 23% of the responding departments. Seven percent of the responding departments indicated an allocation of the academic budget of 10% or more for student recruitment.

The assessment of allocation of resources for student recruitment indicates a lack of department head and faculty involvement and a lack of monetary commitment. The lack of faculty involvement may be an indicator that student enrollment is not perceived as a problem by many of the faculty members of the responding departments. This lack of monetary commitment for student recruitment may also reflect a lack of commitment by university administration for student recruitment. Finally, this lack of commitment of faculty and monetary resources is contrary to the fiscal year 1985 priorities for higher education as stated by the Joint Council on Food and Agricultural Sciences (1984b) which called for an increased proportion of agricultural science resources being directed to the recruitment of outstanding students. In order for recruitment to be successful human and monetary resources must be committed. This commitment will only happen, however, when student enrollment is viewed as a problem.

To determine trends in student enrollments in poultry programs, the survey participants were requested to compare present enrollment of 1, 5, and 10 years ago. The results of these comparisons are presented in Table 6. A decrease in undergraduate enrollment has been occurring over the last ten years. This decrease was indicated by 18 and 23 of the respondents for comparisons of enrollment five and ten years ago, respectively. This decline of undergraduate enrollment in poultry programs is similar to declines in enrollment in Colleges of Agriculture that have occurred at many land grant universities (Joint Council of Food and Agriculture Sciences 1984c).

In contrast, graduate enrollment in poultry programs has remained constant over the last ten years (Table 6). Present graduate enrollment, when compared to five years ago, has remained the same in 15 of the departments, has declined in 12 and has increased in 17 departments. In comparison to ten years ago, graduate enrollment in poultry has remained constant. Present graduate enrollment, when compared to ten years ago, has remained the same in 15 of the departments, has declined in 15 and has increased in 14 departments.

Table 5. The percent of faculty directly involved in student recruitment activities

Percent of faculty	Percent of respondents
0	16
10	28
25	30
50	12
75	5
90	5
100	5

Table 6. Trends in student enrollments in poultry programs in the United States and Canada

Undergraduate enrollment	Less	More	Same
	(Percent of respondents)		
Present vs. one year ago	29	21	50
Present vs. five years ago	42	22	37
Present vs. ten years ago	52	33	14
Graduate enrollment			
Present vs. one year ago	20	18	63
Present vs. five years ago	28	38	35
Present vs. ten years ago	34	31	34

Enrollment of students interested in poultry at Departments of Poultry Science and/or Animal Science is presented in Table 7. Twenty departments reported undergraduate enrollments of five students or less. Fifteen departments reported undergraduate enrollments between six and twenty students. Only three departments reported enrollments of greater than twenty students. Total enrollment of undergraduate students interested in poultry was 407 students.

Twenty-five respondents indicated that they had five or fewer masters degree candidates. The two largest departments indicated that there were 21 to 25 masters degree candidates in their departments. Twenty-five departments reported that the enrollment of doctoral candidates was less than five students. The largest department indicated that their enrollment of doctoral students was in the range of 16 to 20 students.

Table 7. Enrollment of students interested in poultry at Departments of Poultry Science and/or Animal Sciences

Number of students	Undergraduate	Master	Doctorate
	(Numbers of departments)		
0-5	20	25	25
6-10	6	7	9
11-15	5	3	3
16-20	4	1	1
21-25	1	2	0
26-50	1	0	0
51-100	1	0	0
Non specific[1]	7	7	7
Total enrollments	(Number of students)		
	407	216	163

[1]Indicates the Departments of Animal Sciences which reported total enrollments and did not specify students interested in poultry.

Total enrollment of graduate students interested in poultry was 216 masters degree candidates and 163 doctoral candidates. The results of this survey are in agreement with graduate student enrollment figures reported by Arscott and Sunde (1983) and Arscott et al (1980). In those studies, graduate student enrollment of 407 and 379 students were reported for the years 1979 and 1982, respectively.

Summary

Declining enrollments and low student numbers are one indication that current student recruitment efforts are inadequate and changes need to be implemented to attract more students to poultry programs. The results of this survey indicated that 82% of the responding departments were involved in student recruitment activities. However, the effectiveness of those efforts is debatable. The lack of effectiveness can be attributed to a lack of knowledge, and of resources. Although a large majority of the departments participated in student recruitment, resource allocations for these activities were minimal in regard to faculty involvement and monetary commitment. Additional resources need to be allocated to overcome the decline in undergraduate enrollment and the lack of growth in graduate enrollment in poultry science in order to prevent a shortage of trained professionals for the expanding poultry industry.

Acknowledgement

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The Effect of Prior Experience and Level of Interest on Student Performance in Light Horse Management

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Abstract

The influence of prior experience with horses and level of interest in horses on academic performance in a light horse management class was evaluated. Two hundred thirty-nine students were surveyed on the first day of class as to prior experience (professional, show--ring/competitive, recreational, or none) and interest (career-oriented, hobby, casual). The surveys were later used to determine whether final grade (A, B, or C) or final grade average (% of 100) differed according to experience or interest groups. The distribution of grades was not affected by interest or experience. Final grade average was similar between students with different levels of experience but tended to be higher (P◄.05) in the career-oriented group compared to the hobby and casual-interest groups.

Introduction

The students in the light horse management class at the University of Illinois are extremely diverse. A number of students have extensive experience with horses while others have no experience at all. Some students enroll in the course due to a casual interest, but many anticipate using the course material in a horse-related job.

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Mollett and Leslie (1986) have suggested that learning is facilitated when information is made relevant to the experiences or interests of the student. In order to gauge the experience and interest levels of the students in the light horse management class, a survey is given on the first day of class. Since it has been reported that some students in agriculture classes feel that lack of prior experience influences their ability to compete academically (Burger and Brandenburg, 1980), the surveys were later used to relate classroom performance to prior experience and anticipated interest. This paper reports the effects of level of experience or interest on academic performance in a horse management class.

Methods

A survey was distributed on the first day of class in three nonconsecutive semesters. The total number of students completing the survey and the course was 239. Students were asked to evaluate their interest in horses for a) career opportunities, b) serious hobby or recreation, or c) casual interest. They were also asked to evaluate their previous experience with horses as a) professional (instructor, trainer, etc.), b) show-ring or competitive, c) recreational, or d) none.

At the end of the semester, final grade averages were matched with the surveys. The average grade (% of 100) was determined for each response category. In