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

L.M. Lawrence

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

addition, the number of students within each category receiving an A, B, C (or lower) grade based on a 90%, 80%, 70% scale within each category was determined.

Contingency tables were used to determine whether student interest, experience, or grade distribution varied by year. When no differences were found (P►.05), the years were combined for subsequent analysis for effect of interest or experience. Chi-square analysis was used to determine whether experience or interest influenced grade distribution. Analysis of variance was used to determine whether grade average was affected by experience and interest.

Results

The distribution of students by experience category is shown in Table 1. Over 14% of the students felt that their experience was at a professional level; about 20% reported that they had show-ring or competitive experience: 51% indicated that their experience was recreational, and 14% had no prior experience at all. Even though most of the students had only recreational experience with horses, 53% stated that their interest in horses was career-oriented (Table 2). Thirty-two percent were interested in horses as a hobby and 14.6% had only a casual interest.

Table 3 shows the number and percent of students receiving each grade within each experience level as well as the mean final grade average for each level of experience. The students who described their experience as professional tended to have the highest grade average and the highest percent of A grades but these differences were not significant (P►.05). Level of experience did not significantly affect the distribution of grades or the mean average grade (P►.05).

Table 4 shows the number and percent of students receiving each grade within the interest level groups as well as the mean final grade average for each group. There were no differences in distribution due to interest level (P►.05). However, interest level did influence *mean grade* average (P◄.05), with the students having a career-oriented interest obtaining the highest final average.

Table 1. Percent of students within each experience category.

Year	Number of Students	Professional %	Show Ring %	Recreational %	None %
1	83	13.25	15.7	59.0	12.0
2	82	18.3	22.0	45.1	14.6
3	74	12.2	23.0	48.6	16.2
mean	239	14.6	20.1	51.0	14.2

Table 2. Percent of students within each interest category.

Year	Number of Students	Career %	Hobby %	Casual %
1	83	49.4	31.3	19.3
2	82	58.5	30.5	11.0
3	74	51.4	35.1	13.5
mean	239	53.1	32.2	14.6

Table 3. Effect of previous experience with horses on final grade in light horse management.

Grade	Experience Level			
	Professional	Show Ring[1]	Recreational[1]	None[1]
A	40.0(14)	31.3(15)	33.6(41)	29.4(10)
B	48.6(17)	50.0(24)	45.1(55)	58.8(20)
C[2]	11.4(04)	18.8(09)	21.3(26)	11.8(04)
mean course average	87.1±6.7	85.6±6.4	85.3±7.0	86.4±6.5

[1]First number is percent; number in parenthesis is actual count.
[2]Includes grades lower than C.

Table 4. Effect of interest level on grade distribution and mean grade average

Grade	Interest Level		
	Career[1]	Hobby[1]	Casual[1]
A	38.6(49)	27.3(21)	28.0(10)
B	48.0(61)	50.6(39)	45.7(16)
C[2]	13.4(17)	22.1(17)	25.7(09)
mean course average	86.9±6.1	84.4±7.1	85.0±7.3

[1]First number is percent; number in parenthesis is actual count.
[2]Includes grades lower than C.

Discussion

Although the majority of students in the light horse management class described their experience as primarily recreational, over 14% felt that they had experience at a professional level. Interestingly, only 14% reported that they had no experience with horses prior to the start of the course. Despite the diversity in experience level, there was no effect of experience on mean grade average or grade distribution. This may be due to the course content and format. The course follows a lecture format with a few demonstrations. Less than one-third of the lectures are devoted to the selection, handling, and uses of horses which are the areas where prior experience would be expected to have the most effect. The majority of the lectures concentrate on the scientific aspects of horse management: nutrition, reproductive physiology, diseases, parasites, and genetics. It is possible that prior experience does not make an impact on academic performance in a management class where laboratory or hands-on skills are not emphasized.

The effect of experience on performance in other agriculture classes is controversial. Anderson and Elkins (1978) reported that urban and farm students performed equally well in crop and seed identification tasks at the conclusion of a field crops course. But Poland **et al.** (1982a) reported that students with some work experience in a crop-related job performed better on an achievement test at the end of an introductory crop science course than did students with no prior experience. Interestingly, in a subsequent study Poland **et al.** (1982b) concluded that imposed practical experience (through supplementary course materials) may not compensate for prior experience and that the superior performance of students with real-life experience may be due (at least in part) to motivation.

In this study, motivation or level of interest appeared to be a more important determinant of academic performance than prior experience. Although grade distribution was not altered by level of interest, there was an effect of interest on mean grade average. The students who described their interest as career-oriented had the highest mean grade average. Included in the career group were a number of students who desired a career in veterinary medicine. Pre-veterinary students frequently tend to be highly motivated and grade-oriented and this may have been partially responsible for the higher grade average. Inclusion of the pre-veterinary students in the career group may also be the reason for the surprisingly large number of students in this interest area.

Conclusion

There was no effect of prior experience on grade distribution or final grade average in a light horse management course that emphasized the scientific aspects of management. Level of interest did not alter grade distribution but did affect final grade average. The students who indicated they were interested in the course for career purposes had a higher average than those who described their interest as hobby or casual.

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INTERNATIONAL AGRICULTURE

Lessons Learned About On-Campus Training of Foreign Specialists

Albert G. Madsen

Introduction

Colorado State University and many other United States Land Grant Universities are involved in training foreign specialists concerned with agricultural systems. In recent years, Colorado State University instructors have utilized several different approaches to training and from this experience there is a better understanding of precautions that must be taken to achieve effective training. It is recognized that large numbers of adults throughout the world need technical skill training rather than instruction directed toward academic degrees. There are now four basic non-degree training designs used separately or in combination for training foreign participants (see International School). Lessons learned about these training approaches, as well as others, were discussed in a recent workshop (see Madsen, 1985).

Non-Degree Training Designs: Lessons Learned

Design No. 1. Special courses or programs developed for specific clientele or single country groups. These courses vary in length from a few days to two semesters and are most generally interdisciplinary in nature. It has been found that selection of appropriate participants needs to be closely evaluated in regard to their age and education. While older people in the later stages of their careers have performed satisfactorily in special courses, at times they seemed disinterested in the content presented. They were not as enthusiastic nor as interested in detail as their younger colleagues. Greater attention may be given to differentiating training into at least two categories: (a) providing the younger technicians with more discipline oriented "how to do it" technical training, and (b) providing the senior people training that will more directly apply to improving managerial skills.

It is a challenge to present useful training and maintain the interest of all trainees when there is a wide spectrum of disciplines. This seems to be accomplished through courses which provide "hands on" experience as well as classroom instruction while specialists of different disciplines work together. This technique has been used in Diagnostic Analysis workshops (Madsen, pp. 8-9, 13-15).

Programs that are relatively long, two months or more, and involve a number of different faculty present some problems with the continuity of subject matter presented. When many subjects are covered, each subject will not be treated in the depth desired by a few individuals. The trade-off between breadth and depth of material presented must always be closely evaluated.

Design No. 2. Special short courses of four to eight weeks duration offered in summer or between semesters. These courses are frequently oriented toward one discipline but there are courses with more than one discipline involved.

Generally, participants have been selected with the specific course in mind and were, therefore, relatively qualified for the course. However, candidates for these courses have not been rejected due to

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