Experiential Learning: a detailed case study

David Cessna

Abstract

An Internship Program at the Colorado State University College of Agricultural Sciences allows junior and senior undergraduate students to gain off-campus experience in their major. It also offers participating faculty and businesses valuable experiences. Former student participants in the six year old program, surveyed by CSU, strongly endorsed the goals and achievements of the Program.

Overview of Program

Started in 1970 as a coordinated college-wide program, the Intern Program has grown steadily in participant numbers. As of summer, 1976, over 300 junior and senior CSU agricultural students had served in an internship which allowed them to gain off-campus experience in their major, while receiving academic credit and, in most cases, a stipend.

The program is designed so that each internship requires the cooperation of the intern (student), the cooperator (employer), and the university supervisor (faculty member). Each is charged with certain responsibilities during the course of the internship. A successful internship results from a team effort and rewards each member of the team in some way. As stated in the program's handbook, "The relationship between the cooperator, intern, and university supervisor can, and should, provide all groups with a meaningful experience in which each of the three parties gains in some way from the others." These "gains" can range from the students receiving job offers for full-time employment to the cooperators feeling a sense of satisfaction in having done their share in training a future professional agriculturalist. The responsibilities and rewards which participants can derive from the program are many; in fact, it is primarily because of the mutual benefits to the student, cooperator, and university staff that the program was implemented.

The Student's Role

The benefits realized by students who elect to participate in an internship are excellent examples of what the program has to offer and why it was initiated. One of the benefits to the student intern has already been mentioned, i.e., the possibility that such a program may lead to employment. But this is not the primary reason the Intern Program was introduced into the curriculum of the Agricultural Sciences, nor is it the only way the student intern benefits from the program. Perhaps the words of William R. Thomas, Associate Dean, College of Agricultural Sciences, best express another important reason the agricultural educators at CSU created a working intern program. According to Thomas, ". . .a large share of the student concern about the relevance of their education can be attributed to their campus isolation. In fact, most students lack the experience of the work-a-day world that would show them how courses can be relevant. With universities being staffed with new faculty who have largely gone from kindergarten straight through to their first teaching job, no longer can faculty be counted on to provide students with a perspective that extends very far beyond the limits of the campus. As a result, the longer a student remains in the academic atmosphere, the more he becomes dependent upon it because it is the only life he knows. Consequently, most young people in college have no first-hand knowledge of any occupation other than that of being a student."

The comments of students who have participated in the program suggest that Dean Thomas has enumerated one of the major problems facing the former students as they enter the "world of work" for the first time as permanent, professional employees, something much different from part-time, temporary workers. Many students said that a main reason they decided to participate in the intern program was to obtain a feel for life in the "real world," which seems to be so foreign to the style of life experienced in the world of academia. Many cited this exposure as the most valuable aspect of their internship. As one intern said, "Probably the best aspect of any internship is to get away from the student atmosphere. It's almost like a culture shock, but I think it really helps to prepare you for the future."

While some students participate in the program for that reason, others participate for the academic credit, and still others for the practical experience. Students who were reared in a non-agricultural environment and,

David Cessna is director of the Internship Program in the College of Agricultural Sciences at Colorado State University, Fort Collins.

consequently, have little "hands-on" experience depend almost entirely on what they have learned in books, lectures, and laboratories. For them, the practical work experience an internship offers is almost a necessity.

In any case, the program involves an abundance of work and responsibility to which the intern must become accustomed. The responsibility begins when the student decides to become a part of the program, for it is the student who is encouraged to initiate and implement the planning of the internship. The planning phase includes closely scrutinizing and contacting people on the program director's list of possible cooperators until one is found whom the student and faculty supervisor believe is best suited for the mutual fulfillment of the needs and goals of both parties.

The student must then contact (in person, if possible) the cooperator prior to the field experience for an interview to develop the terms of the agreement and outline the program. During this meeting stipends, salaries, other business arrangements, and goals are discussed and agreed upon. In some cases, student interns are not paid; but in others, a stipend is offered. In many cases, cooperators are encouraged to pay students a stipend inversely proportionate to the amount of academic credit they will receive. There is no strict university specification in this matter.

While it may appear that the program is designed almost exclusively for and around the benefits to the student, the two other participants—the cooperator and the university supervisor — are equally important components.

The Cooperator's Role

The cooperators, who act as both employers and teachers to student interns, are from a variety of agricultural businesses. Some are owners of farms or ranches and operate as their own bosses, hiring a few employees during their busy seasons. Others, such as a large sugar company located near Fort Collins, should actually be referred to as cooperating agencies, since there is not one division at the company, but many, that work with student interns.

The cooperator is an integral member of the intern program who has knowledge, experience, and equipment that cannot always be found in a classroom but which, when shared with students, can add new dimensions to their education thereby providing them with meaningful learning experiences through working associations. These persons, through their knowledge and experience, can show students how the information in text books relates to real-life situations.

Cooperators seem to participate in the program for a variety of reasons. Some, such as the sugar company, look on the experience as an opportunity to help prepare students for careers in agriculture. Others view the program as a way to prepare future employees for their own firm or business. Still others feel that participation in the program allows them to stay in contact with the academic world. For whatever reasons the cooperators choose to participate in the program, they usually feel a certain sense of satisfaction in that they have enhanced the agricultural industries by helping to produce better-prepared agricultural scientists.

Faculty's Role

The last component of the intern program's three party team, the member of the agriculture faculty or the university supervisor, plays a strategic role. One of the university supervisor's duties is to help students organize their internships. Since students are encouraged to initiate their internships, the help the supervisor initially provides often is guidance. But during the internship the supervisor's major role in the program emerges. During this time, the student submits weekly progress reports describing the type of work that has been performed during the week, any new aspects of agriculture that may have been learned, and any problems or concerns that may have been encountered. The supervisor must read the progress reports and respond to them with encouragement, guidance, or friendship. The response can come in many ways, such as a return letter, a phone call, or a personal visit to the intern's place of learning. Visitations by the supervisor are strongly encouraged but are sometimes difficult or impossible to achieve. The greatest of the difficulties is distance, for although many students intern near the Colorado State University campus, others have been placed as far away as Canada, Florida, and even Africa. When a visitation is feasible, it is usually made. This allows the cooperator, student, and university supervisor to discuss the intern's program, its problems and advantages, face to face.

The last responsibility of the university supervisor is to assign a grade to the student intern. The final grade may be pass/fail or the traditional A, B, C, D, F, and is based on evaluation by the cooperator, the student's weekly reports, and the student's final paper, in which the program is described and discussed in depth.

Although the university supervisor may benefit singularly from participation in the program, it is really the staff and students of the College of Agricultural Sciences as a whole who reap the rewards. In a large measure the internship program contributes to the availability of better educational programs and an increased faculty awareness of current professional practices and activities.

Survey of Intern Program Effectiveness

Recently CSU surveyed former student interns to determine attitudes toward the program and ways in which it might be improved.

Method of Survey

One hundred four student interns had graduated when the survey was conducted. Valid addresses could not be located for six of these students. Questionnaires with return envelopes were sent to the remaining ninety-eight former student interns from the departments of animal science, agronomy, and horticulture. After two weeks, those who had not yet returned their completed

surveys were mailed another, with another self-addressed, pre-stamped return envelope. When the time limit for returning surveys was concluded, seventy-three former students had responded for a return rate of 75 percent.

The former interns were asked to respond to twenty questions, including multiple choice questions, ranking, and short answer. Questions were divided into related sections, such as personal background, employment, improvement of the program, value of the program, and the arrangement of the program.

Survey Results

Three questions concerning the arrangement of the student's internship were asked:

1. How was your internship arranged?
2. Was this arrangement satisfactory to you?
3. In your opinion, what is the best way for a student and faculty member to share the responsibility of arranging an internship?

Approximately 72 percent of the responses to question one indicated that the student had assumed much of the responsibility for the necessary arrangements. Twenty-eight percent of the respondents reported that the faculty advisor was predominately responsible for the arrangements. Responses to question two suggested satisfaction with the method of arrangement as 90 percent indicated support. However, only seven percent of the responses to question three indicated the faculty member should be predominately responsible for arranging an internship. The remaining 93 percent felt that the student should assume much of the responsibility.

The survey also asked whether the students changed their class schedules after completing their internships, since it was thought many internships might increase or decrease interest in a chosen major. Twenty of those surveyed changed their schedules as a result of their internship, but 53 left their schedules as they were.

The survey also asked whether the period of "hands-on" experience during an internship made the students' classes more relevant upon their return to campus. Fifty-six percent of those surveyed felt their courses seemed more relevant after the internship. 34 percent felt that they were about the same in relevancy, and 10 percent felt they were less relevant than before.

The former students were asked to place a value on aspects of the program by ranking twelve items. Program characteristics were ranked by the students in the following decending order with number one being the most important, number two the next most important, etc.

1. Practical knowledge gained
2. Exposure to professionals
3. Self-assurance and maturity increased
4. New methodology gained
5. Contacts made for future employment
6. Academic credit earned
7. Interest in major increased
8. Personal weaknesses highlighted
9. Travel/culture experience
10. Chance to use equipment not found at CSU
11. Financial benefits
12. Interest in major decreased in time to make adjustment.

One former student remarked that the most beneficial aspect of his internship was the fact that he met his wife.

Improvements

The survey asked how the College of Agricultural Sciences could improve the internships. In a field of ten possibilities, the following were checked most often:

1. More communication between school, cooperator, and student before internship begins
2. Encourage cooperators to work with a student more often in the capacity of "teacher"
3. More visits to the place of work by on-campus supervisor
4. More cooperators to choose from
5. Better screening of potential cooperators

Regarding employment and employment offers, the following questions were asked of those surveyed:

1. Are you presently employed by the same firm or employer who acted as your cooperator during your internship?
2. Were you offered a permanent position upon graduation by your cooperator?
3. If the answer to question two is **no**, please indicate why?
4. If you were offered employment by the same firm which you interned, but declined the offer, what was the reason?
5. In relation to your current position, how valuable do you feel the experience was that you gained during your internship?

Of the responses to question one, 23 percent indicated they were currently employed by their cooperator. An additional 6 percent were originally employed by their cooperator, but have since taken other employment. More importantly, 56 percent of the former students responding to question two indicated they were offered full-time employment by their cooperator.

Of the interns who received job offers but declined, 62 percent indicated they had received other employment offers which were better paying, in a more suitable location, or in general more to their liking; 26 percent returned to a family operation, 6 percent were not satisfied with the cooperator or their intern experience; and 6 percent went on to graduate school.

Forty-four percent of the interns were not offered full-time employment by their cooperator. Of these students, 76 percent interned with cooperators who normally do not offer full-time employment. Intern experiences of this nature included work at smaller farms and ranches, orchards, veterinary clinics, and university research centers. An additional 22 percent responded that the coorperator was aware prior to the internship that the student was not seeking full-time employment because of graduate school, desire for self-employment, or plans to engage in family agricultural operations. The remaining 2 percent were interviewed for a permanent position, but not hired.

Eighty-seven percent of the former students surveyed indicated they were currently employed in agricultural

industry. All of these students felt that their internship was highly valuable in relation to their positions.

When asked their overall opinion of the internship program, seventy of the former students said their overall opinion of the internship program was positive; only three had mixed opinions. No one had a negative overall opinion of the program.

Discussion

The results of this survey indicate that students feel they should be responsible for arranging much of their internships. Reasons for this might be desire (a) to exert initiative and accept responsibility, (b) for job interview experience in a less threatening situation, (c) to represent themselves to their own best interest.

It was anticipated that many students would change their course schedules after completing an internship to accommodate newly perceived needs. However, response to the survey indicated otherwise, since 73 percent of those surveyed left their class schedule as it was and 27 percent changed their schedules upon return to campus. It would appear that the internship experience is, to a great degree, strengthening interest in an agricultural major while concomitantly exposing weaknesses in an agricultural major, if such exists, in time for students to change their direction in education.

Regarding the relationship between the intern experience and class relevancy, 55 percent of those surveyed felt their classes were more relevant after their internship. The need exists for some method of relating textbook knowledge to actual application. The internship appears to fulfill this need to some degree. The College of Agricultural Sciences could benefit from a more in-depth study of this point in structuring agricultural curricula.

Programs of this type will meet many goals, each different to the individual participants. The primary objective of the internship program is to provide off-campus experience to students in their chosen field before graduation. Survey results exhibit the wide variety of personal goals which were met by the experience; however, the top ranking aspect was that primary goal of the program. The internship program is thus meeting its objective, with the added benefit of remaining flexible enough to provide various other personal satisfactions to the student.

Student initiative in the arrangement of the internship has been shown to be beneficial. However, regarding areas of improvement, survey results demonstrate that the university has a major role to play in each internship arranged. The greatest need appears to be more on-going communication between the university and cooperator not only before the student actually begins work, but also throughout the period that the student is away from campus. There also appears to be a need to explain more thoroughly to some cooperators the exact objectives and intents of the program.

Survey results indicate that approximately 30 percent of student interns will be initially employed by their cooperator after their internship and college education are complete. Although not the primary objective of the program, prospect of future permanent employment is indeed a valuable aspect. Since more than 50 percent of the cooperators offer their interns permanent positions, the program is offering a substantial benefit to its participants, both intern and cooperator. Results also indicate that the internship is of great value as an experience "stepping stone" toward other employment in the agricultural industry.

Summary

Agricultural internships for junior and senior students were initiated at Colorado State University in 1970. The primary purpose of this program was to provide students the opportunity to gain practical experience in their major while also providing mutual benefits for faculty members and cooperators.

Responses from 73 former Colorado State University Agricultural Sciences students were collected to determine attitudes toward the internship programs in which they had participated. When questioned about a variety of items, the former students felt that three of the most important aspects of the program were the practical knowledge gained, exposure to professionals, and increased self-assurance and maturity. Nearly all former students employed in the agricultural industry felt that their internships were of great value in relation to their current positions. In addition, internships provided permanent employment opportunities to a significant number of students upon their graduation. Although a need was expressed for more communication between the student, cooperator, and faculty supervisor both before and during internships, 96 percent of those who had participated in the program had very positive attitudes toward their particular internships.

Teaching Forum Announcement

A Forum on Teaching Methods in Animal Breeding will be featured at the 72nd Annual Meeting of the American Dairy Science Association on the campus of Iowa State University at Ames on June 26-29, 1977. The forum will be structured around several topic areas including the use of audio-tutorial units, visual aids, term reports, herd simulators, and laboratory exercises. Each topic will be introduced by a teacher who has successfully used the method, but the major portion of time will be given to open discussion and sharing of experiences. Students and teachers alike are encouraged to participate. The main stream of the forum will be undergraduate teaching, but vocational and graduate instruction will also be included. A display of instructional materials will be assembled for inspection throughout the meeting.

Registration information and a program may be obtained from C. J. Cruse, American Dairy Science Association, 113 North Neil Street, Champaign, Illinois 61820.

G. E. Shook
Dairy Science Department
University of Wisconsin
Madison, Wisconsin 53706