

Instructional Opportunities and Challenges in Satellite Campus Agribusiness Management Education

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Abstract

Place-bound adult learners, including agribusiness employees with families, are increasingly seeking opportunities to access post-secondary education while remaining spatially separated from a main college campus. Colleges of agriculture have responded by modifying or extending existing educational programs to reach non-traditional clientele. In 1998, the University of Florida's Institute of Food and Agricultural Sciences launched a Food and Resource Economics (agribusiness management specialization) B.S. degree program at a research and education center 200 miles from the main campus. Students are mostly older (average age is 35), place-bound, and employed; many have families. Class size is very small, averaging 5.6 students. The normal class period is three hours, one evening per week. The atypical setting, student profile and class structure present some unique instructional opportunities and challenges. This paper presents a series of active and experiential teaching exercises that are employed to maximize student learning while capitalizing on students' work experiences and strong local community support. Descriptions are provided for three specific instructional techniques: think-breaks about practical problems related to course material, discussion sessions with industry leaders who bring real-world relevance into the classroom, and term projects focused on current local policy issues and agribusinesses.

Introduction

Within traditional agricultural economics departments, enrollment over the last decade has decreased, particularly among undergraduates. Blank (1998) found that average undergraduate enrollment in agricultural economics programs dropped steadily from a peak of 221 students in 1982-83 to 180 students in 1995-96. Total enrollment also decreased but by a smaller percentage, indicating that there has been very little decline in graduate student numbers. One method used by colleges of agriculture to reverse the downward trend in undergraduate enrollment over the last decade has been diversification of their educational programs, most commonly through the addition of new programs on the main campus. An additional means of diversification is to modify or extend existing programs to reach new, non-traditional, clientele groups. Place-bound employees of input supply firms, cooperatives, food processors and other agribusinesses may present a real opportunity for further agribusiness management education and training. In the future, these primarily adult learners and full-time employees will most likely seek ways to access educational opportunities while remaining spatially separated from a main college campus (Litzenberg and Parks, 1996).

In a 1998 survey of 48 American and Canadian agricultural and resource economics department chairs, Weldon et al. (1999) identified only four undergraduate degree programs being offered completely at satellite campus locations. Thirteen department chairs indicated that they expect to offer such programs by 2003. An additional 15 departments expect to offer some courses at satellite locations by 2003 with an anticipated 11 percent increase in 18-24 year old students enrollment. Most of these satellite campus programs are expected to utilize distance education delivery methods, with faculty teaching from the main college campus. The University of Florida, Institute of Food

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and Agricultural Sciences (UF/IFAS) has implemented a different approach to respond to perceived unfulfilled educational needs. UF/IFAS is one of the first land-grant universities to establish an agribusiness management undergraduate degree program, delivered primarily through live instruction, at a satellite campus.

Regardless of the approach undertaken to achieve programmatic diversification, in order to be successful any program must be market driven and respond to the educational needs of identified consumers (Akridge et al., 1994; Weldon et al., 1999). The objectives of this paper are to identify the perceived market for undergraduate agribusiness management education in the Treasure Coast area of Florida, profile the program's current consumers, and detail faculty instructional strategies designed to meet the opportunities and challenges presented.

The University of Florida Satellite Campus Program

The University of Florida is a public, land-grant research university. It is the oldest and largest of Florida's ten universities with more than 44,200 students enrolled in Fall 1999, including more than 3,900 in the College of Agricultural and Life Sciences, a part of UF/IFAS. UF/IFAS has faculty located on the main campus in Gainesville, and at 21 research and education centers, extension offices in 67 counties, and four demonstration units throughout the state.

The Treasure Coast area of southeast Florida is located in the heart of a major agricultural production region. UF/IFAS has served this area with a traditional research and extension center since 1947. However, prior to 1998 students from the Treasure Coast who wished to receive a four-year degree in agriculture at the University of Florida were required to travel approximately 210 miles to the main campus in Gainesville. In 1997 community support, leadership from local state legislators, and guidance from university administrators resulted in legislative funding to add an undergraduate teaching program at the UF/IFAS Indian River Research and Education Center (REC) in Ft. Pierce. Students can now earn a B.S. degree in Food and Resource Economics (Agribusiness Management specialization) or Horticultural Sciences without leaving the Treasure Coast. Eight faculty members, including four from the Food and Resource Economics Department, three from Horticultural Sciences, and one from Environmental Horticulture were hired with 70 percent teaching appointments to provide instruction for the UF degree programs. The first classes were offered in Fall 1998 with courses open to both degree-seeking and non degree-seeking students.

In order to take advantage of the synergies among educational opportunities in the area, the teaching program at the Indian River REC is structured as a partnership between the University of Florida, Indian River Community College (IRCC), and Florida Atlantic University (FAU). IRCC provides an Associate in Arts degree that prepares

students for entry into the UF/IFAS program of study. Upper-division agribusiness courses are taught by UF/IFAS faculty at the Indian River REC. FAU offers selected upper division economics and business law courses for the UF/IFAS degree program.

Student Profile and Class Structure

On traditional land-grant university campuses there has been a trend toward higher average class size in the majority of agricultural economics departments over the last decade. This suggests that individual students have less access to faculty, even though total student numbers enrolled in the discipline have been decreasing (Blank, 1998). The opposite is true of the UF/IFAS satellite agribusiness program. Twelve courses have been taught in the agribusiness management curriculum between Fall 1998 and Spring 2000. Since the degree program is new, class size has been very small. A total of 67 students attended the 12 courses, giving an average class size of 5.6 students per class, with a range from one to 14.

In addition to the atypical research and education center instructional setting, the degree program features both non-traditional students and class structure. Students are primarily place-bound either by choice or necessity, almost all are employed, and many have families. The average student age was 33.4 in Fall 1998, 33.9 in Spring 1999, 38.2 in Fall 1999, and 34.0 in Spring 2000. Ages ranged from 20 to 74 over the four semesters. Over the same four semesters, two-thirds of the students were male; one-third were female. Thirty percent of the students were degree seeking, while 70 percent were non-degree seeking.

One temporal consideration in the development of agribusiness teaching programs is the learning schedules of today's students and the emergence of life-long learning objectives for adult learners. The Monday-Wednesday-Friday class structure may not meet the needs of today's learners (Litzenberg and Parks, 1996). Accommodating the needs of the non-traditional Indian River REC students requires a specialized class structure. Courses are taught between 5 and 9 p.m., with each course offered one night per week for a three-hour block of time.

Teaching Strategies and Techniques

Agribusiness curricula, including term projects, which augment traditional classroom instruction with experiential learning opportunities can provide the technical knowledge, leadership ability and creativity needed to meet the needs of the business community. The structure of the satellite program at the Indian River REC provides the teaching faculty with both opportunities and challenges in

designing a course. Instructional opportunities include capturing the students' own experiences which are often more extensive than those of traditional college students, capitalizing on strong local support for the program, and customizing classroom materials to fit the needs of the non-traditional students and class structure. Teaching challenges include maintaining the rigor of upper-division agribusiness courses, managing small class sizes, keeping students alert and interested, and overcoming the limitations of long lecture periods with long gaps between lectures.

Classroom techniques used to meet these opportunities and challenges are designed to apportion the length of each individual lecture while maintaining the momentum to cover an entire semester's material. Efforts are made to capitalize on the students' own experience and the strong community support through experiential learning exercises involving local businesses. Three teaching techniques employed in the UF/IFAS satellite campus agribusiness management program to achieve these goals are discussed below.

Think-Breaks

Prior research (Russell, 1979) has shown that learning is maximized when new material is presented in short segments with frequent breaks. Since the non-traditional class structure, defined by infrequent meetings and long lecture periods, is not naturally conducive to such an approach, a number of exercises are applied to stimulate better learning. These exercises can be broadly categorized as think-breaks (Schaffner et al., 1998) or brain-friendly techniques (Harris, 1999). Student think-breaks are short discussion questions about practical problems related to the course material and adapted to draw upon the life and work experiences of non-traditional students in south Florida. Three different think-breaks are listed for illustrative purposes.

1. Demand and Supply Equilibrium:

How would each of the following events affect (in the short run) the supply, demand, and equilibrium price of grapefruit?

- Severe frost hits the Indian River grapefruit-growing region.
- The Florida Department of Citrus introduces a successful Heart Healthy promotional program.
- A prime time television special exposes significant risk of *e-coli* contamination from drinking unpasteurized fruit juices.

2. Evaluating Commodity Grading Systems:

We have just reviewed the purpose of commodity grading system and the performance criteria used in evaluating a grading system. You have been hired as a consulting team to evaluate the grading

system for fresh grapefruit. How well does the grading system for grapefruit perform?

3. Discriminatory Pricing:

You supply potted houseplants to retailers. Your price for large retailers (Wal-Mart, Target, etc.) is lower per plant than for small, neighborhood garden centers. A competitor argues that this is illegal in the U.S. under the Robinson-Patman Act. What evidence would you assemble in your defense?

Inclusion of 10-minute think-breaks every 30 minutes has proven successful in breaking up the three-hour class period into small, manageable segments by having the students stop and use their new knowledge. The think-breaks are also effective in eliciting active student discussion, encouraging student and instructor interactions, and motivating students to apply new knowledge to practical problems.

Discussion Sessions with Industry Leaders

There is a real need for students to learn concepts that will remain applicable over the course of their careers. Many students are disinterested in theory and concepts unless their usefulness has been demonstrated through detailed, relevant examples. In response, universities have been making changes in the design of their management classes to include a closer partnering between firm and university, increased emphasis on experiential learning, and a greater focus on company-specific issues. Reaves et al. (1996) identified ten particular elements that are critical to successfully implement the teaching of management at colleges of agriculture. A partial list of these elements includes use of instructor-facilitated discussion groups in class and forums that bring business leaders to campus. Discussion sessions focused on the application of previously presented economic topics are utilized in both Food and Agricultural Policy and Introduction to Agribusiness Management classes at the IRREC. These discussion sessions, which cover a wide variety of topics, are specifically designed to capitalize on the students' own, often extensive, work experiences. The end of the class period is used to discuss current applications of material presented the previous week, allowing students time to review material, raise additional questions, and revisit material, and enhancing continuity between lectures. In addition to review, this teaching technique also changes the pace of activity in the classroom, providing another method for apportioning long lecture periods.

Agribusiness management courses often utilize industry professionals to bring real-world applications into classroom discussions. However, the distance between agribusiness headquarters and many university main campuses may require considerable travel (Litzenberg and Parks, 1996). The physical proximity of a satellite campus to the agricultural industry facilitates efforts to establish regular industry interaction in the agribusiness manage-

ment teaching program.

Whenever possible, the classroom discussion sessions are structured around participation from both industry and student discussion leaders. A guest speaker is invited to address the class in his or her area of expertise, thus bringing real-world relevance into the classroom. Often students are able to provide additional insights drawn from their own work experience. A brief description of one discussion session from each of two courses, Food and Agricultural Policy and Introduction to Agribusiness Management, illustrates the interaction and highlights the opportunities associated with strong local support and a diverse student population.

One objective of the Food and Agricultural Policy course is to help students recognize the impact on agriculture from broad policy decisions outside the farm bill and to provide them with a framework to analyze the economic consequences of such decisions. Therefore a section of the course is devoted to state and local land-use planning, an issue of critical importance to agriculture in a high growth state such as Florida. The invited speaker during the discussion section for this is a Florida State Representative from District 78 who has been actively involved in state-wide land-use planning and legislative efforts for many years. The student discussion leader works as the Assistant Director of Planning and Zoning for the city of Port St. Lucie and was able to present the local government perspective on land-use issues.

A goal of the Introduction to Agribusiness Management course is to introduce students to the tools and techniques of management, including those that can be applied in human resource management. The invited industry speaker for the discussion section on this topic is the president of a Florida citrus growing and packing operation. The private company maintains both a full-time and temporary workforce that is very diverse in terms of ethnic background, education, and age. The student discussion leader works as an Agricultural Consumer and Protection Inspector Supervisor for the Florida Department of Agricultural and Consumer Services, a public agency that also maintains a diverse workforce.

Term Projects

Semester-long student projects are not unique to satellite campus programs. Again, proximity and support from the local community as well as the students', often extensive, background experience can provide unique teaching opportunities within the framework of a project. In the Food and Agricultural Policy course students are asked to analyze a current policy issue. However with only a small number of students in the class, a portion of class time

throughout the semester can be allocated to discussion of each individual topic as the students progress with their analyses. This provides multiple opportunities for the students to verbally present their material, to actively learn from each other, and to receive constant feedback as the projects evolve. Close proximity and strong ties to local agriculture afford students the opportunity to inject a degree of real-world consequences into their projects that is sometimes, but not always, achieved in a more traditional campus setting. For example, one student recently analyzed the proposal to impose taxes on Internet transactions, an issue of critical importance to his company, which markets local citrus electronically.

Students in the Agricultural and Food Marketing course select a local agribusiness firm (often the student's employer) within an industry in which they have career interests and use the concepts learned throughout the semester to prepare a marketing profile of the firm. Consistent with the conventions used in firm case studies, the profile includes examination of the firm's products, the determinants of product supply and demand, firm marketing philosophy and strategy, industry profile/characteristics, and the firm's position within the industry.

Cooperation by the selected agribusiness firms is necessary for students to obtain firm-specific information required for a realistic, in-depth profile. Students provide a letter of explanation, prepared and signed by the course instructor, to the firm's owner or officer. The letter explains the objectives of the project, requests the firm's help and cooperation, and discusses the confidential nature of private firm information. The company owner or officer then must sign a Student Research Authorization form to confirm willingness to participate in the marketing profile.

Projects are structured to require continuous involvement from students throughout the semester. For example, in Agricultural and Food Marketing, the project report is submitted in three scheduled stages. In addition to maintaining student involvement, this staged approach also permits the instructor to provide students with feedback on their written communication skills and the overall quality of the final product. A high quality final product is essential for the term projects because the cooperating agribusiness is provided a copy of the final firm profile.

Agribusiness managers, and therefore, agribusiness students have to be proficient in presentation skills (Litzenberg and Parks, 1996). Term projects are viewed as an instrument to improve students' verbal communication skills. Near the end of the semester, students prepare and present an 8 to 10 minute presentation on their term projects. Students may use any presentation style they prefer, including overheads or slides, although a PowerPoint presentation is strongly recommended. Representatives from the profiled agribusiness firms are

invited to attend the students' presentations, since having agribusiness people in the audience is thought to raise the level of application and student written and oral communication performance (Reaves et al., 1996).

Summary

Agricultural economics departments have adopted several methods to extend existing programs to new clientele. The University of Florida was one of the first land-grant institutions to adopt a satellite campus approach where the existing undergraduate degree in Food and Resource Economics (agribusiness management specialization) is offered, via live instruction, at a physically distant location. This model has been used, or is under consideration, by several other agricultural economics programs (i.e., Oregon State University, University of Idaho).

The target audience initially identified for the UF/IFAS program are primarily place bound individuals, many of whom are older than the traditional student, have families and full-time employment. The needs of these non-traditional students led to the creation of a non-traditional class structure. Courses are offered one night per week in the evenings in a 3-hour class period with a week between lectures.

The teaching faculty located at the UF/IFAS Indian River REC satellite campus utilize a variety of teaching techniques to take advantage of the special opportunities and challenges such a non-traditional program structure offers. Think-breaks, classroom discussions with industry leaders, and term projects are all used to introduce a greater degree of realism and critical thinking in the classroom environment. While such techniques have certainly been applied in more traditional agribusiness management courses, they become especially critical in preparing students and programs in a satellite campus setting.

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