Experiential Learning through Industry Interaction in a Large Lecture Agribusiness Course



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Abstract

Budget pressures in many colleges of agriculture are resulting in larger class sizes. Large lecture classes often come with a sacrifice of individual interaction between instructor and learners. This article presents an innovative approach for incorporating industry interaction into a large agribusiness class. A project called "Ready, Set, Sell!" provides a structured interaction in which students work with an individual industry coach with support from instructors. At the conclusion of the semester, students and industry representatives collaborate in a role play. The event results in positive outcomes for learners, companies and instructors. Suggestions for teachers who wish to utilize a similar approach include ways to develop industry resources and considerations for monitoring student experiences.

Introduction

Undergraduate education finds itself in an era of tight budgets in which teaching larger groups of students is becoming more prevalent (Haurwitz 2010; AP 2011). Agriculture programs have not escaped budget cuts with the consequence that some institutions are seeing larger class sizes (Hayhoe and Thompson, 2011). With larger class sizes, the opportunities for one-on-one instructor interaction, a hallmark of many agricultural programs, may be sacrificed. Many colleges of agriculture have looked for creative partnerships with industry to address funding concerns (Rivera, 2011) or to provide additional instructional resources (Henneberry, 1990). This article presents an approach to involving industry resources to help build communication skills in a large lecture agribusiness classroom.

Agricultural programs are responding to budget cuts in nearly every state. Often this has resulted in cuts to staff and intentionally larger class sizes (South Dakota State University, 2011; University of Hawaii

at Hilo, 2010). Some programs are seeing increased enrollments at the same time (Rivera, 2011) and have looked for a variety of solutions to address higher demand (Hayhoe and Thompson, 2011).

Involving business in agricultural education is one way in which some programs have sought to fund shortfalls (Rivera, 2011), but the benefits of industry involvement extend beyond financial. Henneberry (1990) discussed the value of including industry guests as lecturers at Oklahoma State University and pointed out the appreciation students had for the "real world" perspective the guests brought. Litzenberg and Dunne (1996) suggested several ways in which industry partnerships could be created, pointing to mentorships as an example of industry interaction that can have advantage for students, companies and faculty. Baker et al. (2008) described ways in which collaborations with industry could be managed and suggested several dimensions of these partnerships that included costs and benefits for each participant. Short term group projects for master's students were provided as examples. Mentoring for MBA students and site visits were also suggested as valuable experiences. These two approaches were viewed positively by industry as well (Baker et al. 2008).

While there appear to be clear benefits for creating student experiences with industry, pragmatically, ways to accomplish this in today's larger classes have not been described and are not obvious beyond the occasional classroom guest. This article presents the pedagogical background for creating individual, interactive experiences for students with industry, describes one way that this has been accomplished in a large agribusiness selling course and addresses the benefits and challenges for students, businesses and faculty who are involved in the process. The article concludes with suggestions for teachers who wish to utilize a similar approach.

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Experiential Learning

Kolb (1984) describes experiential learning as an integrative process that has "intellectual origins" in the works of Dewey, Lewin, and Piaget. These authors provided models of learning that connected cognitive and experiential events. Kolb described experiential learning as a process, not an outcome. Experiential learning takes place as expected norms are interrupted by conflicts which require adaptation to resolve. Thus, instructors who put students in a position to participate in events that are unique to their personal history, facilitate adaptation and learning.

Peuse (1989) drew from Kolb, Steinaker-Bell, and Krebs to describe the role of the instructors of agriculture in training. He emphasized that it is important for trainers to plan learning experiences that allow learners to practice new skills and reflect their performance. Kirkpatrick also emphasized practice, but as an outcome indicating that learners are translating knowledge into behavior - the stated objective of most training efforts (1996). Perhaps most influential in addressing the process of learning and training was Bloom, who's taxonomy conceived with David Krathwohl included application as one of six cognitive domains (Krathwohl, 2002). Newcomb and Trefz considered these issues within agricultural education, suggesting that there were four levels of learning behaviors that should be used to assess collegiate student outcomes in academic programs: Remembering, Processing, Creating, and Evaluating (2005, from the original publication in 1987). At hand is the issue of how these tasks may be enhanced with industry interaction.

Elam and Spotts advocate for the use of live cases in the business marketing classroom, integrating students and clients in real world interactions (2004). This approach is consistent with service learning as proposed by Bringle and Hatcher in 1996 (Zlotkowski, 1999). This type of experiential learning has students move outside of the classroom to thoughtfully relate course material to community needs. Hagenbuch (2006) has utilized this approach to help students apply the knowledge gained in a college sales course in the service of not-for-profit community organizations, demonstrating positive outcomes to learning measured attitudinally. Community needs are often defined within human service causes, but the counterpart commercial experience may provide similarly unique events to which students must apply knowledge and adapt behavior.

Deeter-Schmelz and Kennedy surveyed sales curricula and found that experiential learning was included in more than 97% of undergraduate sales education courses in the form of role plays. Widmier

et al. (2007) describe how competitive experiences within this domain teach both selling skills and teamwork. Mantel et al. (2002) describe a similar type of role play that involved interaction between students in sales, purchasing and management. There are several national competitions in which industry professionals are used to evaluate sales presentations in a competitive environment (Loe and Chonko, 2000), but this is typically an extracurricular activity and usually outside of agriculture. Training experiences within the controlled environment of a role play may benefit learners even more than real world experiences, as the ability to control the environment and provide immediate feedback helps them develop effective cognitive scripts (Leigh, 1987).

In 2004 the National Food and Agribusiness Management Education Commission (NFAMEC) suggested that industry could play an important role in helping develop agribusiness programs and, with their engagement, the faculty who teach in them. Two of the members of this committee, Akridge and Boland, state that "Engagement with industry is of critical importance in creating a unique set of experiences for agribusiness degree students" (2004, p. 573). The reports suggest several approaches for making this happen, including guest lectures, field trips and mentoring. Experiential learning and industry involvement in the classroom may benefit learners, but the practical methods for including this approach within a large class have not been previously presented in the literature.

Methods

For many years, Purdue University has taught an introductory course in professional selling in agribusiness, primarily to sophomore and junior students. It is a service course that has had average enrollments of 350 students from many majors around the campus over the last ten years. The course provides a fundamental approach to selling that is the entry point into two bachelor's degree programs - Selling and Sales Management (housed in the College of Health and Human Sciences) and Sales and Marketing (housed in the department of agricultural economics in the College of Agriculture). Because of limited teaching resources, the course is taught as one section each semester. Typically, about 30% of the students in the course come from the College of Agriculture. Of those, about ten students each semester will proceed toward a Sales and Marketing degree. Other students from the college of agriculture are studying agribusiness or agricultural economics, animal sciences, agronomy, agricultural engineering,

education, landscape and horticulture related majors, forestry, food science, or a few other specialty areas within the college.

The major experiential learning activity in the course is a project called, "Ready Set Sell!" Near the beginning of the course, each student selects a product that they would like to learn to sell during the semester. The product choice must fit within a limited number of categories (i.e. agricultural equipment, seed, crop protection, food, etc.) and the student must locate a "sales coach" from industry who will be an advisor to them on the sales process for their specific product throughout the semester. Students must arrange for an opportunity to observe their coach interacting with customers in the field at some point before the end of the semester. For the final "exam," the instructor invites a different set of sales professionals to come to campus as "evaluators" and participate in a sales role play. The role play is a graded activity in which the sales professional portrays a customer for each of three to five students in a group. Each student takes a turn "calling" on the pretend customer portrayed by the evaluator. Each student's sales call is graded by the evaluator and peers in their group.

As students prepare for the sales call role play throughout the semester, they complete a structured interview with their sales professional by phone or in person, in order to gain an understanding of how their product is marketed in the real world. Students are then asked to apply the general knowledge of the sales process that is presented in lecture to the specific process that is used for their product. The sales process is broken into components and the student's effort to apply general knowledge of each component concept to their specific product is graded. Students adjust their presentations on the basis of the graded feedback they receive. Industry guests are also interviewed by the instructor in the classroom throughout the semester to help students see how course materials are interpreted by individual companies in the real world. Through these activities, students are asked to remember, process, create and evaluate, consistent with Newcomb and Trefz (2005). Collectively, the three hundred students interact with more than 425 sales professionals each semester. They gain knowledge about selling through a textbook and lecture, hear it illustrated with guests in class and in interviews with coaches, observe coaches putting a similar process to work in the field, practice it through their own participation in the role play and evaluate the role play experiences of others.

Quay and Quaglia (2004) suggest that instructors should encourage healthy risk-taking by making it safe for students to both fail and succeed. The "Ready

Set Sell!" project allows students to do both. This is reflected in the assessment structure for the role play component of the project. Student grades and scores for the event are calculated based on a forced ranking of evaluators, along with the scoring of evaluators and students. Grades for the event are bounded at the top and bottom, based on these inputs. Therefore, although participation in the role play is 15% of the student's semester grade, the minimum score is 78% of that for students who complete the required event (and the maximum is 96%). This helps to take some of the worry off of "bombing" the event with a low score so that students can focus on their performance and be open to feedback from the evaluator and peers.

Results and Discussion

Over the last five semesters, as shown in Table 1, there have been 1,536 students who have completed the "Ready Set Sell!" project. Agriculture students made up 35.9% of this population. Students from Engineering and Pharmacy are included in the "Other" category. A large number of undecided students take the course with recommendations from their advisors to try the experience to see if selling would be a good career fit for them. Freshmen have generally been discouraged from taking the course. Sophomore status is the most common among those in the course at 38.3%, with juniors and seniors at 34.0% and 22.6% respectively.

Table 1. Course Demographics								
	F2011	S2011	F2010	S2010	F2009			
Major								
Agriculture	84	137	107	125	98			
Health	54	62	53	52	83			
Management	60	73	43	62	61			
Technology	17	7	12	6	11			
Undecided	71	57	49	46	56			
Other	9	11	11	7	12			
Status								
Freshmen	29	6	16	3	24			
Sophomore	115	119	102	130	122			
Junior	91	128	96	104	103			
Senior	60	94	61	61	71			

For students, the results have been very positive. As shown in Table 2, over the most recent five semesters with course evaluations, 26.2% of comments relating to the course have been about the "Ready Set Sell!" project. 15.4% of the course comments were explicitly about the "Ready Set Sell!" role play event and of those 87.5% were positive. Negative responses included criticism of the work load required and a specific evaluator. Positive comments were generally expressed as appreciation for the "real world" application of course material.

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Table 2. Student Responses								
Number of Responses	F2011	S2011	F2010	S2010	F2009			
Comments about course	63	72	85	61	83			
Positive about RSS Experience	8	6	18	5	12			
Negative about RSS Experience		2	3	0	1			

Through the "Ready Set Sell!" experience, students get a perspective of potential employers that can't be obtained at career fairs and job interviews. Each semester one or two students initiate contacts with evaluators that lead to jobs or internships. Companies who participate as evaluators or coaches get to observe student professionalism and performance outside of a typical interview setting. Companies appreciate that students get to see them in a different way than they do in the interview process and that students have a higher awareness of the company as a potential employer. Approximately 50% of evaluators return each semester, with several having participated more than 20 times. On average, 68% of evaluators for the last five semesters have participated in that role at least once before. Anecdotally, alumni of the course frequently mention the "Ready Set Sell!" project as a memorable component of their college experience.

For students, the challenges expressed in course evaluations tend to be around workload. In class, concerns are usually expressed around uncertainty about what to expect, anxiety with regard to speaking in front of others, or dealing with a specific component of the course content – handling customer objections. Professionals who participate often express curiosity with regard to course content (which is nearly always confirmed as consistent with field experiences and training), time requirements ("What will my commitment be as a coach?"), or self-doubt ("I'm not sure I'll know what feedback to give to students"). To alleviate student concerns, a dress rehearsal in which students meet others who will be in their peer group for the event and practice their role play is conducted. Not only does this provide practice in a controlled setting, but it allows them to preview the levels of preparedness and quality of competing presentations. An evaluator from a previous semester is typically asked to speak in class to address student anxieties as well. Also, to help set student expectations a video presentation of the event from an earlier semester is played and two student volunteers from the current semester demonstrate the role play live in front of the class (which is quite daunting in front of 350 peers).

To address challenges for salespeople, students are coached and provided resources on managing their relationships with coaches. Coaches are sent an email from the instructor expressing gratitude and offering a resource. Each semester a required training session for

evaluators is held immediately prior to the role play event so that they know what to expect. Evaluations are highly structured.

For faculty there are several challenges. Requiring students to find a coach creates real or perceived hurdles for students to overcome. Students who come from a distance may be hampered in their ability to locate a coach who they can feasibly observe. These students require some support and an active hand in helping them locate a suitable coach. The pool of past coaches can be useful for this group. Some students are uncomfortable using a professional network or have not yet developed one and will need a firm hand to help them step through the possibilities.

Coaching interactions and field experiences are, by design, held away from campus, which prevents instructor intervention. Students are required to turn in papers that summarize each of these activities, but there is tremendous variation in the quality of these interactions. These factors lead to two concerns: academic dishonesty and assessment validity.

There have been more than ten instances of dishonesty discovered among more than 1500 students who have taken the course in the last five semesters. These have fallen in to two categories: Students who don't have a field experience, but submit a paper indicating they have and students using papers from prior semesters. To address these issues, students are required to take and submit pictures from their field experiences and to submit contact information for their coaches, who are contacted by the instructor.

The role plays are conducted in 75-80 small groups, dispersed into classrooms around campus. It is impossible for the instructor to be present in each room and would potentially increase student anxiety in rooms where the instructor is present. Student assessment is accomplished with input from peers and evaluators, but there are still sometimes conflicts. For this reason, students are asked to record their presentations. Students who don't feel that their assessment scores accurately represent their performance are encouraged to provide the recording to the instructor for an arbitrated evaluation. In smaller classrooms, the recordings could be used at a later time for student instruction, but this has not been incorporated into the large classroom.

An additional challenge for faculty is locating enough sales professionals to serve as evaluators. A ratio of one salesperson for every four students seems ideal. In practice, observations of five and six student groups indicate some burn out from students and industry representatives. Groups of two and three tend to lack formality for good feedback discussions.

Once the program is established, the task of finding enough evaluators is quite manageable, drawing from the pool of sales coaches and previous evaluators. Many of the communications and logistics to accomplish this become routine and can be accomplished electronically, but telephone support requires individual effort and time. In the course presented here, undergraduate teaching assistants help with this task. Requests coming from students are well received and the students appreciate the interaction with industry professionals. Follow through for evaluators is sometimes a challenge; typically about 10-15% of committed evaluators are unable to participate. A surplus of evaluators and back-ups is necessary to account for this. Every effort is made to match evaluator expertise to the category of product being presented (i.e. animal health sales people with students selling animal health products). Replacements are not always able to bring those skills, however, so students must be told of this potential in class periods before the event in order to manage their expectations. Historically, evaluators in traditionally consumer sales roles (i.e. cell phones, office supplies, clothing) tend to have a higher number of unforeseen conflicts that prevent their participation.

Summary

Experiential learning through role play requires a high degree of structure and observation in a large lecture classroom, but that should not preclude the use of this type of tool. As class sizes grow, instructors necessarily must find more efficient ways to create quality learning experiences for students. Leveraging industry participation provides benefits for students in terms of their exposure to real world activities and helps them make important career contacts. Companies appreciate the opportunity to interact with students outside of the interview process. Alumni, in particular, seem to appreciate returning to campus to meet fellow alums and to give back to their alma maters. Faculty are provided with feedback on the changing aspects of selling and are able to achieve learning outcomes that are difficult to replicate with traditional lectures. Large class sizes require administration and experiential learning can add to this burden. However, the effort is worthwhile in order to be able to create positive learning outcomes for students.

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