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# Using Distance Education in Graduate Programs

Allen M. Featherstone and Lynnette M. Brummett

There has been much hype around online education creating a revolution in education. Studies analyzing the use of distance education at the graduate level have been limited. This article uses Kansas State University's Master of Agribusiness program as a case study. Educational theory related to a distance environment is studied. Development and technology issues related to the Master of Agribusiness program are presented followed by survey information from students. Appropriate administrative and management practices that govern a program are essential to the success of the program.

*Key Words:* graduate degree program, online education

**JEL Classifications:** A2, A23, Q1, M2

“For-profit educational services, capitalizing off of instructional training. Bankrolling tutelage on a gravy train. Go ahead and sneer; cringe and shudder—get it out of your system. Oh the horror, running a profitable business that includes many of the facets of a traditional higher education.” — Swanson

From the corporate boardrooms of the United States to the rice fields of Cambodia, food and agribusiness professionals around the world are using the Internet and CD-ROM technology to earn a Master of Agribusiness (MAB) degree through Kansas State University. More than 200 students from more than 30 states and 18 countries have enrolled in the program while continuing their careers. Employers include agricultural and nonagricultural corporations, as well as farmers, bankers, and educators. Such is the hype that

can be generated surrounding distance education programs that led Peter Drucker to opine, “The future is outside the traditional campus, outside the traditional classroom” (Gubernick and Ebeling).

How accurate is that hype? What do students think? How do instructors assess distance education? Those issues and others will be addressed using Kansas State University's MAB program as a case study. Specifically, educational theory in a distance environment is briefly discussed. Next, a review of the MAB program will be presented that focuses on development and technology issues. Survey information gathered from incoming and exiting students will be presented and analyzed. The manuscript will conclude with a discussion of the lessons learned.

## Educational Theory of Distance Education

Before covering the MAB program, we will briefly discuss the theory that has begun to develop around distance education. Although we would like to suggest that this knowledge was the guiding factor in the decisions made

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regarding the program, this would not be truthful. The program was developed to meet a perceived potential market of students that would be willing to self-support (pay for) their graduate education with the intent to not cannibalize the on-campus master's program and with the possibility of eliminating the distance program should the venture be unsuccessful.

Distance education moves instruction to the people, rather than moving people to the instruction. The instructor and students are separated by time and/or space, with communication partially or totally being mediated by technology. In those respects, online learning can be argued to be a subset of general learning (Anderson). In those respects, Bransford et al. argue that effective learning must be learner centered, knowledge centered, assessment centered, and community centered.

Anderson goes on to discuss Bransford et al.'s four effective learning concepts in the context of distance education. Anderson suggests that online learning challenges educators in this aspect. A student's prior knowledge, misconceptions, and cultural aspects play an important role in addressing the concept. Specifically, Anderson argues that bandwidth constraints limit the student's ability to signal preconceptions and cultural perspectives through the limited view of body language and other nonverbal cues. In fact, one of the issues that the MAB program has struggled with is the comfort level of instructors who have an on-campus component versus the comfort level of those who are all distance teachers.

The second concept of effective learning is that it be knowledge centered (Bransford et al.). The essence of knowledge-centered learning is that generalized problem solving and thinking skills be taught in the context of the field of study. Although Anderson notes that online learning neither benefits nor detracts from knowledge-centered learning, we have found that the requirement of prior business experience enhances this concept of effective learning.

The third concept of effective learning is that it be assessment centered (Bransford et

al.). The key to assessment concept is the ability to motivate, inform, and provide feedback on performance for both learners and educators. Although the ability of assessment can be almost unlimited in online education through the use of tracking software and other immediate testing mechanisms, the key is to find those that are most effective in online environments (Anderson). Part of that key is to bring in the expertise of peers to motivate others. Anderson argues that creating opportunities for students to work on projects that are workplace based and that allow for constructive collaboration and peer review can be enhanced in the online environment, although this needs to be tempered by the potential increase in instructor workload.

The final concept of effective learning is that it be community centered (Bransford et al.). Building community includes a shared sense of belonging, trust, expectation of learning, and commitment to participate and contribute to the community (Anderson; Wilson). Anderson suggests that distance education students typically value the freedom from place and time constraints. Thus, the issue of community can be difficult to deal with in an online environment, even if the economic issues and resistance to virtual learning environments can be overcome (Anderson).

Claxton and Murrell argue that student learning style, information processing, social interaction, and instructional methods play an important role in the learning process. With regard to instructional methods, Claxton and Murrell argue that students have differing preferences for various media, such as text-based, visual (e.g., graphs, pictures, diagrams), audio, and experiential medium. Within the context of graduate education, it is important to note that the potential pool of students for the most part has studied under traditional university teaching methods. To that extent, there is familiarity (for better or worse) with the instruction methods used in on-campus undergraduate programs. Thus, to the extent possible, the Internet was initially used to recreate a subset of previous undergraduate

experiences, such as lectures and recitation sessions.

Finally, it is important to consider research that compares distance education with traditional instruction methods. Russell examined a collection of 355 studies and concluded that distance can be no better than traditional instruction (no significant difference between traditional and online learning exists). Bernard et al. used meta-analysis to determine whether distance education improves student achievement relative to traditional courses. They examined empirical studies between 1985 and 2002, of which 232 were studied. They found that distance education students achieved about the same achievement compared with those students in a traditional classroom, although the results were extremely variable. In general, Bernard et al. found that the mean achievement for synchronous applications were better for the traditional classroom. However, they found that distance education outperformed the traditional classroom for asynchronous applications.

#### **Master of Agribusiness Program**

The MAB program was designed and continues to be managed as an executive-style degree for working professionals. During and since the development of the MAB program, industry leaders provided key input on the skills and abilities their employees need to be successful. Input through an initial survey of employers and alumni and the establishment of an advisory board were critical in laying the groundwork for course and curriculum development. The MAB Advisory Board meets regularly and serves a critical role in assisting the department to achieve the program's mission and objectives. The advisory group has helped to set and monitor well-defined metrics that measure the program's retention rate, student body diversity, employer satisfaction, and course content. The board also provides valuable insight on focusing the program strategically and on emerging issues in the industry that the program should be addressing.

#### *Curriculum*

"The optimization course helped me analyze our coproducts businesses more effectively by analyzing many variables and limitations at once. Our sugar beet cooperative has five sugar beet processing factories in a four-state area and produces up to 700,000 tons of pressed pulp to be either sold to the local cattle market in a wet form or dried into pellets and shipped overseas. The result was a recommendation of product mix from each factory that maximized revenues and a tool that can be updated as energy prices change. This analysis resulted in a change in focus of how we manage our coproducts business and approximately \$1.4 million in savings for the year." — Hofer

During program development, great attention was spent developing the curriculum to weave theory and methods with practical application in a manner that a nontraditional audience with varied experience could appreciate. Building community among the students was a great concern initially, with much effort being expended on laying the groundwork for highly interactive mediated learning. The program was carefully designed to take advantage of alternative learning styles. Text-based, visual, audio, and experiential components are interlaced throughout the program, providing students with multiple methods to grasp course concepts.

The coursework for the program is covered in the first two years, allowing year three of the program for the completion of the thesis. The program consists of 36 hours of coursework plus a 6-hour thesis for a total of 42 credit hours for the degree. The program begins each January with a one-week on-campus session (Figure 1). During this session, students get acquainted with each other and the faculty members who will be teaching their first set of courses, learn the distance technology, and get started on their courses. During January to March, students complete courses in computer decision tools, logistics, and finance. Assignments and projects, along with chat sessions, are completed via distance.

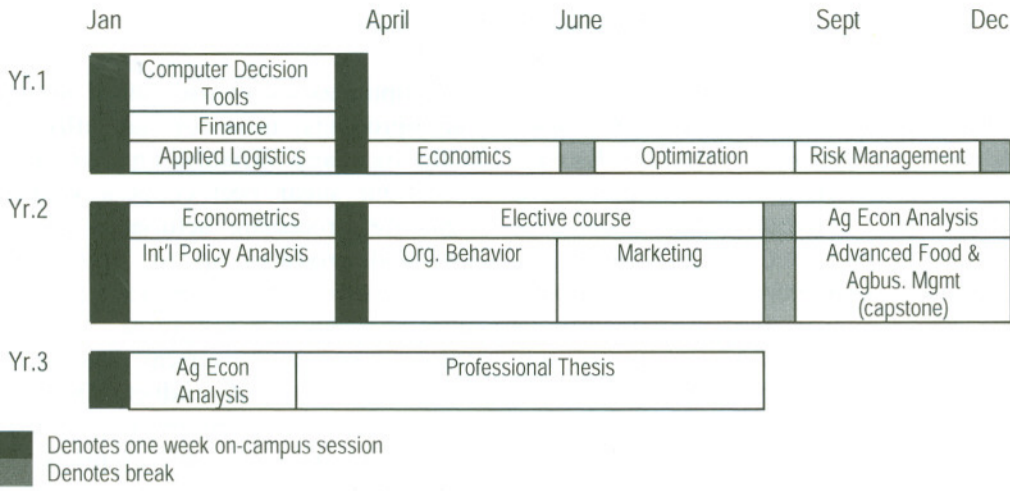


Figure 1. Master of Agribusiness Program Curriculum and Structure

The first set of courses concludes with a March campus session when students return to take exams and present final projects. The rest of the year, April through November, the first-year students take one course at a time entirely at a distance in agribusiness economics, optimization, and risk management. There are two breaks built into the structure of the program, one in July and one for the month of December. Students average one to three hours a day on homework assignments, online lectures, chats, and reading during January to March. The time commitment then decreases the rest of the year.

The second year of the program begins again in January with a week-long campus session (Figure 1). Students take courses on applied econometrics and international trade and policy analysis. Students again begin the course work in January and then return to campus in March to take exams and present final projects. During the rest of the year, the second-year students complete classes on organizational behavioral management, marketing, and a capstone course: Food and Agribusiness Management. During year two, students also fulfill the elective requirement for the program, taking either a Kansas State University course or a course from another institution. The university offers an international elective: Comparative Food and Agriculture Systems. Beginning in September of

the second year, students begin developing their thesis topics.

Each course includes homework assignments and exams. Many courses include group project work, individual presentations, research papers, and case study work. Unlike a campus-based course, a special trip to campus is not required to meet with group members or turn in assignments. All homework is accomplished through e-mail, phone, and chat rooms. Information in the MAB courses is presented so that students are able to integrate key concepts while immediately applying what they learned to everyday work situations. Students and their companies have benefited greatly, even from just one or two courses.

The final year is spent researching and writing the thesis, which is almost always a company-related issue. Students have the opportunity to culminate much of what they have learned through their course work in the thesis project. The thesis project can be completed in three to six months, allowing our students to graduate in May or August.

One of the biggest issues that the faculty wrestled with is the issue of the thesis. Strong opinions existed among the faculty, and continue to exist, with regard to the thesis. Several valid arguments can be made on both sides of the issue. Ultimately, the decision came down to a desire to differentiate the

program from a Master of Business Administration (MBA) program. Perhaps surprisingly, a well-reasoned argument from some of our industry contacts tipped the scales to the inclusion of the thesis. Their argument centered on a concern whether MBA programs are producing the creative leaders with analytical abilities in an increasingly complex global economy. Although analyzing case studies and developing and delivering appealing presentations are important skills, they were concerned that the industry needs to develop managerial talent with the skills to manage and organize information into a decision-making framework.

The concern regarding the widespread adoption of the MBA as the basic credentialing mechanism is an issue of debate in the business literature. Pfeffer and Fong argue that "neither possessing an MBA degree nor grades earned in courses correlate with career success, results that question the effectiveness of schools in preparing their students." Although their arguments are broader than only graduate-level business education, a couple of points are particularly relevant. Pfeffer and Fong suggest that few examples of clinical training or learning by doing exist in business curriculum, unlike medical schools, for example. They succinctly state that "students learn to talk about business, but it is not clear they learn business." Mintzberg and Lampel further suggest that "students with little or no management experience are presented with 20 pages on a company they do not know and told to pronounce on its strategy the next day." In an attempt to differentiate the MAB degree, in many courses students are required to apply the learned concepts to their own company. In addition, the thesis is required to provide a "clinical" experience, where students dig deeply into an unresolved company issue, formulate the issue, gather the appropriate data, and finally develop conclusions and recommendations.

### *Technology*

"The greatest reward from participating in the Master of Agribusiness program is the ac-

quaintances I have made. I have made many contacts in the agriculture industry that will serve as important contacts for the remainder of my career. I look forward to the opportunities that will be available because I have my Master of Agribusiness from Kansas State University." — Evosovich

Course lectures are delivered via a customized CD-ROM provided for each course. Lecture material may also be accessed via the Internet at any time. At the university, students access course materials through K-State Online (KSOL), which is currently marketed as Axio Learning. This is a homegrown system comparable to WebCT or Blackboard. A text and a binder of notes accompany each course so that students may use their written notes to follow along with the prerecorded lectures or archived chat sessions. The exploding popularity of iPods and MP3 players is giving students a new option for obtaining lectures. Course materials are also converted to downloadable audio and video files on iTunes for those students who wish to leave the laptop at home. Unlike a campus-based course, the student chooses when and where he or she "goes to class" each day.

The distance technology allows faculty members independence and complete control during course development and delivery. Faculty members publish course materials to their course website using the course management system. Chat rooms, message boards, course calendars, and syllabi are also administered through KSOL. Faculty response has been positive in that they appreciate the ability to administer their courses from their office, home, or around the world.

Another component of the course is the weekly recitation or chat session. A live lecture is set for each course, usually with the input of the students enrolled in that course. The faculty member and students meet in the chat room to go over course materials, discuss homework problems, or for a general question and answer session. Each session is then archived so students who could not attend the chat can review the discussion or for students to go back and listen for additional

assistance. Initially sessions were conducted with one-way audio using Real Producer and a two-way text chat. We have moved to Horizon Wimba, which is a multiaudio chat session that allows individuals from anywhere in the world to login and participate. Previously, only the instructor had audio capability and students had to type questions and responses, but with Wimba, everyone with a microphone can participate, making it a true "chat." Instructors also have greater flexibility in presenting materials through the use of PowerPoint, the Internet, and other files students can view. During a Wimba chat, an instructor may import their lecture slides, provide students the opportunity to ask questions, and then post notes pertaining to next week's assignments. The Wimba technology allows for greater interaction between students and faculty or student to student using VIOP over a 28.8 kps connection and has resolved one of the most common complaints of lack of two-way voice interaction.

#### *Global Reach*

"Each international instructor in Comparative Food and Agriculture Systems brought his own unique set of issues and information to the discussion, pertinent to the region he represented, which gave a refreshingly authentic flavor to each segment. The format gave a healthy alternative to the American view of everything and left me with a greatly improved understanding of the complex dynamics of global agriculture and agribusiness." — Nelson

Internationalization of the MAB program was always an important goal for the degree. The agribusiness and food industries transcend boundaries, and issues related to these industries affect every part of the world. Having international students enrolled in the program provides an avenue for our domestic students to get a glimpse of how things differ in countries outside the United States and North America, but additional international exposure adds an inside view on agricultural in other regions.

Because of the technology package used, the MAB program has developed a global reach. In the initial design of the technology package, a deliberate decision was made to allow participation for anyone who had 28.8-kps dial-up access. During the second year of the program, inquiries began arriving from international students. Currently, about 15% of the students are located outside the United States. Not only has the technology bundle allowed students to be located internationally, but also it has created opportunities to access scholars from around the globe.

Six years ago an internationally taught course was developed to add an international experience to the MAB program for those who were interested. The course is offered as an elective, and about 60% of MAB students take the course to fulfill their elective requirement. Comparative Food and Agriculture Systems is taught by six international professors and covers MERCOSUR (Mercado Comun del Sur, the Southern Common Market), Russia and the rest of the former Soviet Union, the European Union, East Asia, and the Oceania region. The professors include Daniel Conforte, a Universidad ORT business school professor located three blocks from MERCOSUR's headquarters in Montevideo, Uruguay; Pavel Sorokin, a Moscow State Agro-Engineering University professor who has served in Russian and Soviet Union embassies in the United States and India; Nicolas Habert, an Ecole d'ingénieurs Purpan professor with a background in the European banking industry in Toulouse, France; Yann Duval, an economist with extensive experience with Asia-Pacific trade and investment in Bangkok, Thailand; Ravipim Chaveesuk, a Kasetsart University professor with an agro-industry technology management background in Bangkok, Thailand; and Keith Woodford, a professor from Lincoln University in New Zealand with a background in farming systems, agribusiness, and international rural development.

The goal of the course is to give U.S. students an inside view of international agriculture. Often these types of courses are taught with a U.S. bias. Having professors teaching in

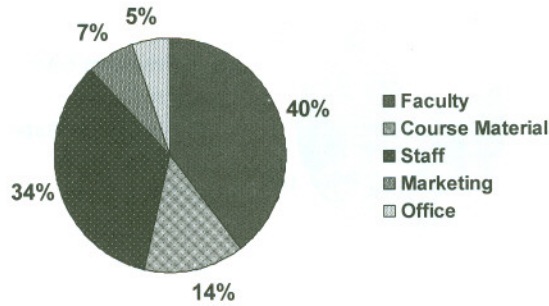
country has taken away this bias. Each professor provides lectures, readings, and an assignment for his or her module. Weekly chats are led by the international professors and can include guest speakers. For example, Daniel Conforte asked a Uruguayan beef exporter to participate in one of his weekly chats. The discussion covered differences in health and safety procedures between the United States and Uruguay, the advancement of the natural beef market, and how Uruguay is controlling foot and mouth disease.

*Business Model*

“Educational training and pedagogy instruction are not immune to laws of economic scarcity. Knowledge and information can be commodities as well.” — Swanson

Cost efficiency has been a key for maintaining the ongoing self-sufficiency of the MAB program. By 1999, the program’s second year, cumulative revenues exceeded cumulative costs. The program can remain self-sufficient with as few as 17 students entering each year; the projected incoming class will include 25 students. Revenues generated are returned to the program, which allows for further growth.

Distance education programs are inherently costly programs to put into operation. Through the work of Daniel Bernardo, then Head of the Department of Agricultural Economics, and Elizabeth Unger, Dean of Continuing Education, the enterprise was allowed to set tuition rates, reinvest the tuition, pay faculty overload, initially run a negative balance, and hire staff. This innovative financial arrangement was foundational to the success of the program. Having the ability to manage the program using an economic business model allowed the program to pursue opportunities as they become available. Figure 2 illustrates the distribution of program revenues to various expense categories. The bulk of the revenues is used on personnel, with 40% of the revenues going to support faculty and 34% of the revenue going to support the staff. The remainder is used for



**Figure 2.** Budget Distribution (1998–2006)

academic support or course materials, marketing, and general office expenses.

**Student Responses**

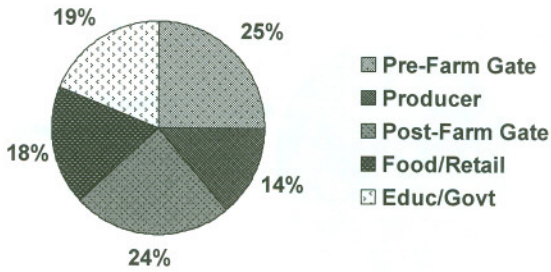
“My procrastination in completing this degree is a credit to the MAB program in that the knowledge I acquired during the program has opened so many new doors that I find I have little time to complete the degree.” — Marsh

Master of Agribusiness students are employed in all phases of the food and agribusiness sector. The diversity creates an ideal environment for learning and keeps classroom discussion focused on industry challenges. Many of the best learning opportunities within the program have been unscripted, unannounced, and unexpected. Students develop a network of food and agribusiness professionals through classmates, alumni, and faculty members.

Individuals have a variety of reasons for entering the program but usually fit one of the following categories: 1) they have a technical background in a food or agriculture discipline and want to gain business skills, 2) they have a business or liberal arts background and have entered a career in food and agribusiness and need to better understand the nuances of the industry, 3) they have entered or are preparing to enter a management role and need to broaden their managerial skill set, and 4) they wish to update their technology skills.

Students enter from a variety of different employment sectors. Figure 3 illustrates the percentage of students enrolled from 2000 through 2007 throughout the food and agri-





**Figure 3.** Master of Agribusiness Program Metrics (2000–2007)

culture sector. Roughly equal amounts of students are employed in prefarm gate and postfarm gate first handler. A smaller subset is employed in the food processing/retailing sector, education, or government or are producers. The diversity of the student population along the supply chain makes for interesting classroom interactions.

Each of our incoming students is sent an electronic survey in December, prior to the program start date in January. The surveys allow us to assess if trends are changing over time. The changes may be due to adjustments made within the program or to changes occurring in the food and agribusiness industries. We have identified a few questions that seem to provide some consistent or relevant information pertaining to the program.

#### *Finding the Master of Agribusiness Program*

Marketing a professional online program is much different than marketing a traditional on-campus program. We have used a multitude of advertising and marketing strategies over the years, such as advertisements in print and on agricultural-related Internet sites; bulk mailings to targeted industry groups and Kansas State University agricultural alumni;

airline infomercials; and attendance at trade shows targeting employees of particular segments of the food and agribusiness industry. Additionally, our alumni are spreading the word and encouraging others to consider the MAB program.

Each incoming student is asked to list the way that he or she found out about the program. The Internet and word of mouth were the most common ways our students found out about the MAB program (Table 1). Given that the Internet and word of mouth are popular and consistent methods by which individuals learn about our program, we pay special attention when developing our marketing strategy for the upcoming year. In addition to the traditional Google searches, we take advantage of marketing opportunities online, knowing that many of our potential students are using the computer to conduct business and look for opportunities in graduate education and career advancement. We also stay in contact with alumni through an annual alumni event and use our alumni as program references.

#### *Characteristics Important to Incoming Master of Agribusiness Students*

As the program was developed, the goal of the program was to attract a group of students that would not consider attending an on-campus Master of Agricultural Economics program due to geographical constraints, time constraints, or career objectives. The data in Table 2 show that full-time enrollment is not what our students want. Thus, marketing strategies emphasize the executive style of the MAB program. In addition, we also convey that we understand our students have obligations in addition to work and school, such as

**Table 1.** How Did You First Hear About the Master of Agribusiness Program

Program Start Date	Advertising	Internet	Word of Mouth	Other
2003	6%	12%	47%	35%
2004	4%	20%	48%	28%
2005	10%	52%	29%	5%
2006	24%	53%	18%	6%
2007	0%	35%	50%	15%

**Table 2.** What Other Types of Programs Did You Consider?

	Distance	On Campus	Part Time	Full Time	Master of Business Administration	Nonbusiness	Other
2003	71%	53%	35%	18%	70%	24%	6%
2004	48%	28%	28%	16%	48%	0%	0%
2005	43%	24%	29%	14%	43%	19%	10%
2006	59%	35%	29%	24%	41%	24%	6%
2007	65%	40%	50%	10%	65%	25%	10%

Note: Responses to each item are not mutually exclusive. Individuals were able to mark all that applied.

family and community obligations, and that we are comfortable dealing with the issues of nontraditional students in that although the program is structured, some flexibility is provided.

A large percentage of individuals who have joined the MAB program considered MBA programs, most of them unrelated to agribusiness. It is important to understand what is attractive about an MBA program and dialog with prospective students about the similarities and differences between a traditional MBA and the MAB program at Kansas State University.

Purdue University in West Lafayette, IN, and the University of Guelph in Ontario, Canada, both offer distance MBA programs in agribusiness (Boland et al.). Their structures are slightly different, but both include residency sessions and cover two to three years. The cost of the Purdue program is higher and is marketed to a different type of audience. The Purdue program allows individuals to complete a Master of Science (MS) degree in Agricultural Economics or a combined degree (MS/MBA) with Indiana's Kelley School of Business. The program at the University of Guelph offers an MBA degree in Food and Agribusiness and requires two annual one-week sessions on campus. The program includes seven core business courses followed by five courses related to the food and agribusiness sector.

#### *Concerns of Incoming Master of Agribusiness Students*

Table 3 and Figure 4 illustrate the student concerns about entering the MAB program. Students were asked to rank their concerns

from 1 to 7 with regard to time, the cost of the program, the use of technology, distance education, going back to school, the ability to complete graduate course work, and the ability to write a thesis. The table presents the average ranking, while the graph indicates the percentage of the time the item was ranked 1 or 2. The number one concern of those entering the MAB program in all but 2006 has been the time commitment. This is not surprising given several factors: the MAB program is designed for those individuals who have completed their undergraduate degree and have at least two years of professional work experience. Our students are all fully employed, and many of them also travel extensively. Second, the average age of our students is approximately 35 years. Therefore, many of them are married and have children or are starting families, creating a higher demand on their time. Last, we try to be very open with our students, advising them of the time commitment of the program. We want individuals in the program who can and will devote the necessary time to being successful.

The thesis project also tends to be an area of concern for many incoming students. Much of this concern is simply a product of a lack of knowledge. The thesis project is the final piece of the MAB program, so we do not spend much time talking with our incoming students about the thesis until they begin year two of the program. It is only natural that they have reservations about something of which they know little.

Technology seems to be the least of our students concerns. This is not surprising given that they have decided to enroll in a program that uses the latest technology to deliver

**Table 3.** Average Ranking of the Issue with Which the Student Is Most Concerned

Class of	Time	Cost of Program	Technology	Distance Education	Back to School	Ability to Complete Graduate Course Work	Ability to Complete Thesis
2003	2.3	4.0	5.4	4.7	4.8	4.6	3.4
2004	2.7	3.8	5.8	4.8	4.2	3.9	3.3
2005	2.4	4.1	5.0	4.1	4.4	4.0	3.8
2006	3.5	4.5	5.1	4.1	4.0	3.3	3.1
2007	1.8	3.4	5.2	4.7	4.4	4.4	3.6
Overall average	2.5	3.9	5.3	4.4	4.3	4.0	3.4

Note: Ranked on a scale of 1 to 7 indicating the item with which the student is most concerned, with 1 being the issue of most concern.

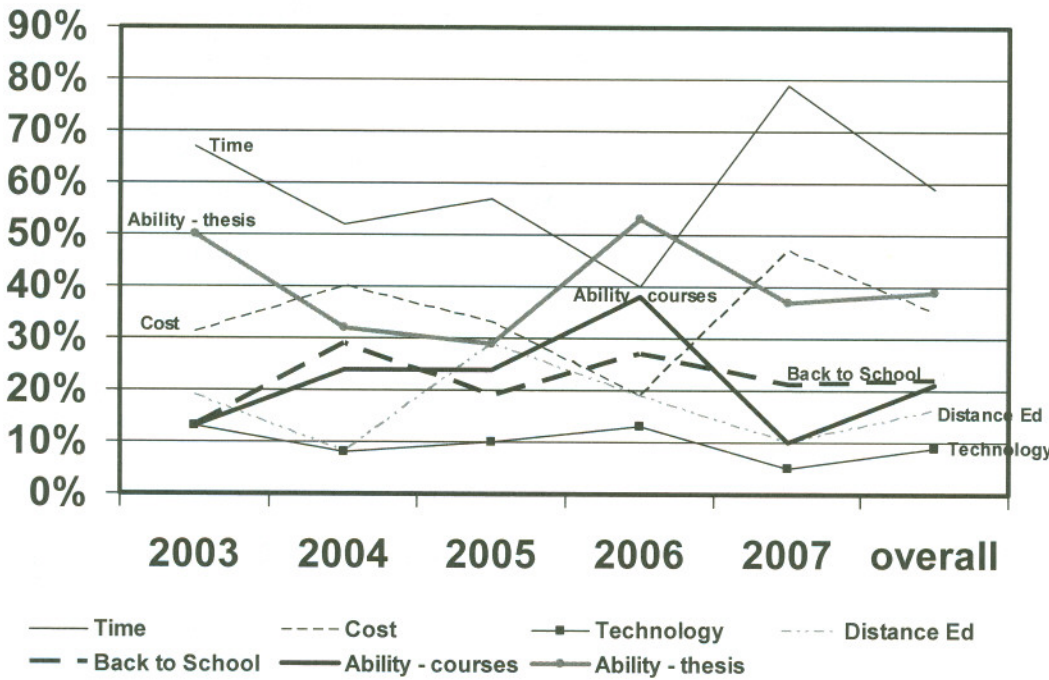
course material to students residing all over the United States and in many other countries.

*Student Expectations of the Master of Agribusiness Program*

Although we know that our students come to the MAB program for a variety of reasons, there seems to be general agreement of what they expect to gain from completing the program. In Table 4 and Figure 5, we see that they want to increase their knowledge about business and economics and increase

their knowledge of the industry in which they work: food and agribusiness. In some respects, this result is preconditioned due to the marketing of the program; however, it does provide evidence that those who do enroll are enrolling for what the program was intended to deliver. In addition, this sends a very clear message of expectations that the staff and faculty associated with the MAB program must meet.

There are also unexpected benefits that our students and graduates value. Although the MAB program is a distance program and



**Figure 4.** Concerns of Incoming Master of Agribusiness Students

**Table 4.** Average Ranking of the Item the Student Expects to Get Out of the Program

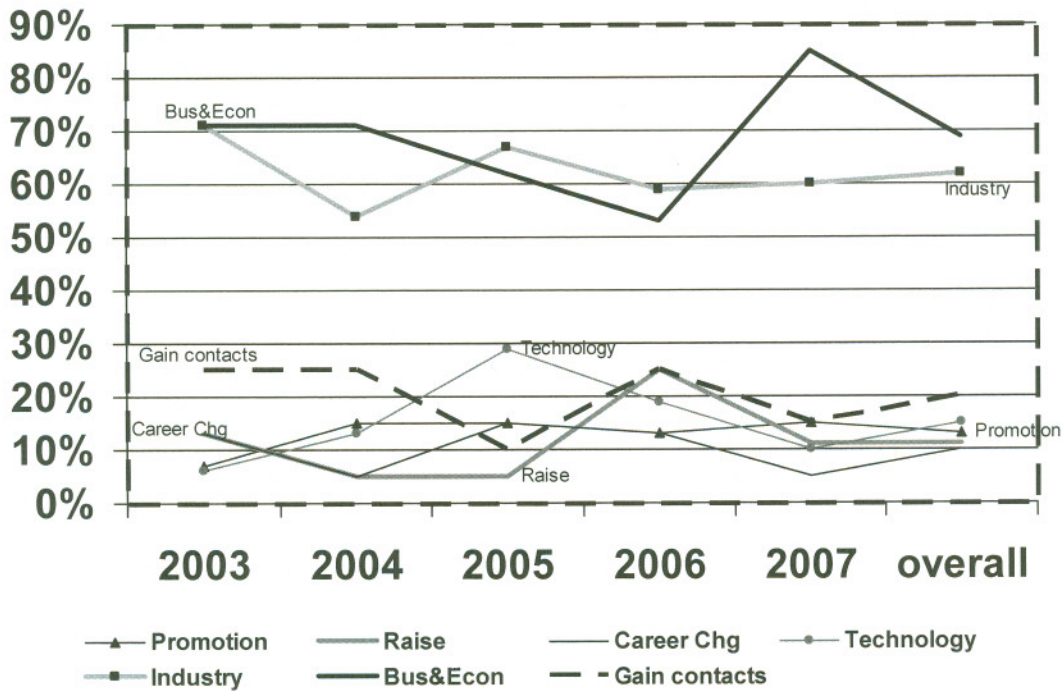
Class of	Promotion	Raise	Career Change	Knowledge About Technology	Knowledge of Industry	Knowledge About Business and Economics	Gain Contacts
2003	5.6	5.6	5.2	4.4	2.6	1.9	3.9
2004	5.6	5.4	5.7	4.7	3.2	2.2	4.2
2005	5.2	5.0	5.6	3.7	2.4	2.1	4.5
2006	5.2	4.0	5.0	4.1	2.8	2.6	3.8
2007	4.8	4.9	4.9	4.7	2.7	1.9	4.1
Overall average	5.0	4.8	5.1	4.2	2.7	2.1	4.0

Note: Ranked on a scale of 1 to 7, with 1 indicating the item that the student most hopes to achieve.

therefore most of the course material is delivered through distance methods, our students tend to form very close bonds with several individuals within their cohort. This is a product of the amount of time they spend together during the campus sessions in January and March and also the relationships built during the distance communication related to home work and projects. These relationships many times develop into business relationships and long-time friendships.

*Salary Effects*

In addition to the entrance survey, we also survey the group at graduation to assess whether the expectations coming into the program were met. One of the issues addressed was to ascertain the change in salary between the entrance in the program and the salary at graduation. Figure 6 illustrates the distribution of salary. At entrance into the program, a majority of the students were earning below



**Figure 5.** Expectations of Incoming Master of Agribusiness Students



Figure 6. Beginning and Ending Salary Distribution

\$50,000. At graduation, those earning less than \$50,000 decreased to roughly 25%, with the group earning more than \$90,000 being the largest group. The average salary at entry was \$55,550, and at graduation the average salary was \$80,600.

#### Student Satisfaction

The exit survey also tries to address the effectiveness of the course work and the thesis. Table 5 presents the evaluation of the course work in being appropriate for industry; the timeliness of the material; and whether presentation skills, analytical skills, critical reading skills, critical thinking skills, and decision-making skills were improved. The scale was 1 to 5, with 1 being very low, 2 being low, 3 being medium, 4 being high, and 5 being very high. The highest rated areas were analytical skills and computer skills. The lowest areas of improvement were presentation skills and critical reading skills; however, 67% and 58% of the students rated the improvement either high or very high, respectively.

Table 6 addresses the issues related to the value of the thesis. The issues addressed included the application of the thesis to their job and the value of the thesis to their company or business in addition to the improvement in the skills discussed above. Critical thinking skills, analytical skills, and the application of the thesis to their job were rated the highest of the seven choices. The lowest rated areas were the improvement in

computer skills and improvement in presentation skills. Again, each of the issues was rated high or very high by more than 50% of the students.

#### Creating Success

“Maybe not today, maybe not tomorrow, but one day you may end up demanding that a course at state university provides 100% satisfaction guaranteed, service with a smile.”  
— Swanson

The American Distance Education Consortium, Peterson’s, and the University Continuing Education Association have all recognized the MAB nationally for its quality and innovation. Individual courses have been recognized, and instructors have also received teaching awards for their efforts within the program.

Growing enrollment and diversity of students, name (brand) recognition in the industry, and recognition by educational societies all point to the success of the MAB distance program. Figure 7 illustrates the course hours generated by calendar year. A total of 6,020, or 669 hours per year, have been generated since the program’s inception. Achieving this success has been a team effort. Developing and managing a successful distance program requires ongoing communication and cooperation within a department and also across departments. The Department of Agricultural Economics, the Division of Con-

**Table 5.** Rating the Usefulness of the Course Work

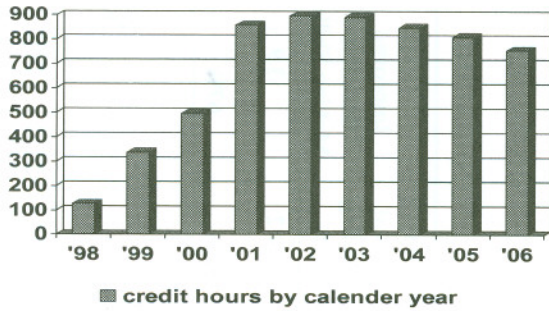
	Industry Application	Timeliness of Material	Improved Computer Skills	Improved Presentation Skills	Improved Analytical Skills	Improved Critical Reading Skills	Improved Critical Thinking Skills	Improved Decision-Making Skills
Average ranking	4.0	4.2	4.5	3.9	4.5	3.8	4.3	4.1
Percent ranking high or very high	82	86	90	67	100	58	88	88

Note: 1 = very low, 2 = low, 3 = medium, 4 = high, 5 = very high.

**Table 6.** Rating the Usefulness of the Thesis

	Appl. of Thesis Project to Job	Value of Thesis Project to Your Company or Business	Improved Computer Skills	Improved Presentation Skills	Improved Analytical Skills	Improved Critical Reading Skills	Improved Critical Thinking Skills	Improved Decision-Making Skills
Average ranking	4.2	3.8	3.7	3.7	4.0	3.9	4.2	3.9
Percent ranking high or very high	78%	59%	61%	55%	71%	67%	82%	67%

Scale 1 – Very Low, 2 – Low, 3 – Medium, 4 – High, 5 – Very High

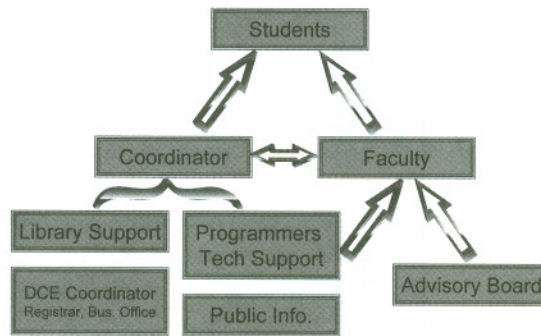


**Figure 7.** Student Credit Hours Enrollment by Year

tinuing Education, and the College of Business Administration have developed a cooperative working relationship that allows the MAB program to enjoy success.

Working with the technical staff in the Division of Continuing Education has afforded the MAB program the opportunity to test and use the latest technological equipment and advancements. It has also been imperative to have technical staff available when the inevitable computer problems arise. Students must have immediate access to support when necessary. In January of 2007, the 10th cohort entered the MAB program. Throughout the past 10 years, we have been served by a staff of individuals who understand that for our program to remain competitive, we must deliver quality course material in a relevant, timely, and professional manner.

Through the combined efforts of those mentioned above and the dedicated MAB faculty and staff, a comprehensive service module creates an environment conducive to academic success for MAB students. The highest level of service is provided to our prospective and admitted students, as well as to our alumni. A service management plan incorporates the expertise of many departments and individuals at the university while funneling the appropriate information to the students. Figure 8 illustrates how the MAB faculty and staff direct information to our students. The service management plan begins once a student indicates his or her intention to join the MAB program. We assist students with the application and enrollment process, provide a program handbook that includes



**Figure 8.** Service Management Structure

detailed information about the program and the campus sessions, order and prepare textbooks and all other course materials, and assist our distance students with a variety of technical or other issues that arise from time to time. In providing this service, we work closely with MAB faculty and others across campus to ensure our students receive the highest quality of information. Communication is certainly the key in carrying out the service management plan.

### Concluding Thoughts

Is distance education an effective means for delivery of graduate programs? There are obviously a variety of factors related to this question, such as packaging and delivery of the curriculum, cost, servicing, marketing, and technology. One thing is certain, in an age of increasing globalization of the food and agribusiness industry, the academic community must develop effective means to deliver cutting-edge, technologically and academically sound, and economically feasible educational programs. Although utilization of educational technology and methods is available to anyone for distribution and delivery of education programs, appropriate administrative and management practices that govern a program such as the MAB program are essential to the success of the program. A dedicated and continued team effort and management with vision is absolutely essential to the success of developing and sustaining any distance graduate program.

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