Learning the Economics of International Trade by Teaching it to Others: A Class Project on Globalization[1]

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Abstract

This article documents a student-designed and implemented class project, where students delivered an educational program on the causes and consequences of international trade and globalization to two audiences of 4-H members and their parents. The rewards and frustrations of the class project are documented and assessments of the project by the students and the teacher are included. When a group of mature, motivated students is given a meaningful assignment, an enormous amount of learning can take place, with large gains in knowledge of the course material, interpersonal skills, teamwork, career goals, and employment preferences.

Introduction

A senior-level course in International Agricultural Trade (AGEC 623) was taught in the Department of Agricultural Economics at Kansas State University during Fall Semester, 2001. The course focused on the causes and consequences of the movement of food and fiber across national boundaries. The first several lectures covered specialization and gains from trade, and why nations engage in international trade of food and fiber. The increasingly important influences of cultural and political factors on agricultural trade were emphasized. The syllabus identified the course's required readings: International Trade in Agricultural Products (Reed, 2001), and Thomas Friedman's (2000) bestseller, The Lexus and the Olive Tree. Friedman's book delineated the impact of globalization and information technology on the standard of living, lifestyles, and habits of both people and nations who adopt and accept markets and technology, and those who do not. The syllabus also included weekly writing assignments, several midterm examinations, and a comprehensive written final examination.

Sixteen undergraduate Seniors, majoring in Agricultural Economics or Agribusiness, enrolled in this elective capstone course. Each of the students indicated a high level of interest in the global economy and international affairs in an informal survey given on the first day of class. Many of the students were College of Agriculture and University leaders, nearly all were academically successful, and all were seeking employment, approximately one-half at the end of the semester (December) and the other half at the end of the academic year (June).

The class was in session on Tuesday, September 11, 2001 when four commercial aircraft were hijacked by terrorists. Two planes crashed into the World Trade Center, and a third jet crashed into the Pentagon while economic and cultural integration and globalization were being explained and discussed in class. The students and teacher became aware of the tragedy at the end of the lecture period, when students entering the classroom for the next class period described the unbelievable events that had transpired minutes before. The class did not meet again until Thursday, September 13. On September 12, the Provost issued encouragement and instructions to all faculty members to accommodate students during this difficult and emotional time.

After some reflection, the strange coincidence of the attack with the course content on international relations, and the E-mail from the Provost inspired the instructor to formally incorporate the impact of the terrorist attacks on international trade into the course requirements. A class project seemed appropriate. Specifically, an assignment was prepared that would utilize the talents and energy of the sixteen enrolled students, in the attempt to improve a troubled world. The idea was developed September 12, and as a result, was idealistic and based on sincere concern, fear, and doubt about the future. This surreal week appeared to be a suitable time to take a calculated, well-planned pedagogical risk of an assignment that would be meaningful in the new circumstances that our nation faced.

During class on September 13, the instructor attempted to recognize the enormity of what was

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happening, link the current events to course content, and provide support for any student who felt troubled. The students in the class were asked if they were interested in the idea of a class project to potentially replace the comprehensive final. The instructor warned the students that the project was likely to entail considerably more time and effort than preparation for and taking a final exam. In spite of the warning, a unanimous student vote supported the initiation of a class project, to be fully conceived, planned, implemented, and assessed by the enrolled students. This article documents how the students exceeded the instructor's expectations by planning and delivering an educational and engaging educational program on the causes and consequences of international trade and globalization to two audiences comprised of 4-H members and their parents. The rewards and frustrations of the class project are documented, together with instructor and student assessments of the assignment. The project provided evidence that when a group of mature, motivated students is given a potentially meaningful assignment, an enormous amount of knowledge is acquired, including large gains in information about the course material, interpersonal skills, teamwork, career goals, and employment preferences.

Previous Literature

Several previously-published articles discuss class projects, extracurricular activities, and course assignments that provided students with an opportunity for experiential learning. Several authors emphasized that learning outcomes can be enhanced when course content is applied to real-world situations and experiences (Henneberry and Beshear, 1995; Jack and Eversole, 1997). Learning can be more significant and productive in environments that are fun and interesting (Jack and Eversole, 1997; Bruening, 1990).

Course activities that require interpersonal and teamwork skills have become more common in recent years. This increase in nontraditional course requirements is in part due to employer emphasis on interpersonal and communication skills (Barkley 1991; Radhakrishna and Bruening 1994). These skills have been increasingly included in the final year of coursework to provide for a successful transition from college to career (Hoerner, 1994; Andreasen and Trede, 2000).

Andelt et al. (1997) concluded, "Students need to become more aware of their personal strengths/-weaknesses, and be afforded the opportunity to practice interpersonal skill in settings other than the classroom, such as may be found in practicums in the community." Recent experiential learning projects described in this Journal include Trede and Andreasen (2000), who reported the results of the inclusion of experiential learning practices in their Agricultural Education course at Iowa State University. Sorenson, et al. (1992) discussed the impacts and implications of using cooperative learning in a introductory agricultural course. Olien and Harper (1994) provided an account of the inclusion of team activities and creative writing in their course. Most recently, Kennedy et al. (2001) described the positive educational outcomes of the application of marketing principles to a University livestock sale.

Service learning merges experiential learning with classroom instruction. Astin (1995) challenged colleges and universities to incorporate service learning into their curricula to promote the democratic virtues of honesty, tolerance, empathy, generosity, teamwork, and social responsibility. The benefits of service learning have been found to be large and significant (Bruening, 1990; Caprio, 1993; Barkley, 1999; Andreasen and Trede, 2000). Although a large number of authors have found service learning projects and course activities to be beneficial, Henneberry and Beshear (1995) emphasized the need to make the project meaningful, and to provide incentives to ensure that students work on the project. This advice is important, as course projects that are not well-planned or rigorous will not bring about the social advantages and gains in knowledge forthcoming from a seriously planned and implemented project.

The Concept of the Class Project

The instructor spent considerable effort planning an effective project that would be meaningful, productive, related to the course material, and contribute to the students' lives and careers. The cooperative learning team project described by Murano and Knight (1999) had similar goals: "The learning objectives of this project were two-fold, related to course content as well as teamsmanship. Students were given responsibility to conduct meetings, organize materials, and function as teams utilizing individual abilities and expertise to share the project workload."

After careful consideration, the instructor realized that the most powerful learning experience was likely to occur if the project was conceived, planned, and implemented by the students. Therefore, the students were given the authority and responsibility to design their own project. The instructor considered the relinquishment of decision-making and control to be a risky decision because the success or failure of the project was now in the students' control. The delegation of authority was made in the attempt to create the proper environ-

ment for a productive learning experience. Further examination, however, revealed that the class was composed of mature, intelligent students who had self-selected into a rigorous course in international agricultural trade and the global economy. The interest level in the material was high, and the events of September 11, 2001 were relevant not only to the course material, but also were described in detail in the reading assignments (Friedman, 2000).

The Development of the Class Project

The 16 enrolled students were given complete authority, control, and responsibility for the class project, including design, implementation, and assessment. To formalize the project, the students met several times, with the first meeting at a hamburger party at the instructor's house. At the initial meeting, the instructor communicated two guidelines for a successful class project: (1) the project should be related to the course material, and (2) each individual student should fully participate in the project. The only additional advice given by the instructor was to take advantage of the students' wide pool of diverse talents, skills, and abilities. This was described by the instructor to the students as an application of the economic principle of specialization and gains from trade, the foundation of international trade and economics. The students were asked to make brief, weekly reports to the instructor during class time.

At the initial planning meeting, one student asked the other students to share an idea or two about possible class project ideas. The group quickly focused on a project that would communicate to others the real-world significance and applicability of the economic principle of specialization and gains from trade. For the two weeks following the first meeting, enthusiasm for this idea increased, and two project themes emerged. First, it was noted that many of the students in the class had significant experience with and talent at, public speaking. These skills were, in many cases, a result of 4-H presentations and projects in the National Future Farmers of America (FFA) Organization. Because of this specialized expertise, the students believed that an educational presentation would be an appropriate and productive class project. Second, one student had participated in a learning activity at a leadership conference that taught the concepts of specialization and trade in an experiential format where teams of participants traded candy and soda. While the general idea and experience of the trade simulation activity were described, the specific details and logistics could not be recalled by the student.

At this early point in the semester, enthusiasm for the project was high, and the students were excited about their progress. In a student assessment written at the end of the semester, one student summarized the project goals as: "Objectives included communicating that trade benefits society as a whole, and that diversity is good for society both through trade and in our culture." The students divided into two teams, one to develop an educational program and trading activity, and the other to identify an audience, and make arrangements for the presentations. At this point, work on the educational program was smooth and efficient, since this was an activity with which many students had previous experience. The students carefully designed a detailed activity that was flexible enough to accommodate an audience of diverse ages, backgrounds, and number of participants. This flexible design was an impressive accomplishment, given the difficulty of the ideas to be communicated and the target audience, which was unknown at the time of development.

The identification of an appropriate audience and scheduling was a more difficult task. Early in the semester, the students believed that an educational program could be developed for delivery to two audience groups: (1) university student groups, and (2) junior high school students. These audiences were selected based on the idea that they would benefit most from the program content. The original plans included presentation of the educational program to numerous university groups, including Greek living organizations, college clubs, and residence hall living groups. Students at neighboring Land Grant Universities would also be contacted, and the educational program would be presented at Oklahoma State University, the University of Nebraska-Lincoln, and the University of Missouri. The two local middle schools were contacted to initiate the possibility of several presentations to students in grades 7 and 8.

These ambitious plans were continuously revised until late in the semester. As the project completion date approached, the selected audiences were narrowed to two nearby 4-H clubs, due to a familiarity with this organization by a number of students and difficulty in making arrangements at the Manhattan, Kansas public schools. The broader goals of presentations to college groups, both at Kansas State University and at other institutions, were eliminated due to a lack of time. These initial objectives were honed to drawing up specific plans for the educational program and trading activity that could be shared and implemented by other groups in the future. Importantly, the course requirements also included a rigorous research paper and the presentation of the research results to the rest of the class, with the presentations scheduled for the last two weeks of the semester.

The class presented the program on international trade and the economic principle of specialization and gains from trade to two audiences of 20 and

15 young people and their parents. The program included short presentations by each class member, and the experiential trading activity, in which candy and sodas were exchanged between teams, or "nations." The audience was divided into groups of three to four persons. Younger children were placed together with older club members to promote equity in entrepreneurial ability, and fairness. Each team selected a name for their "nation." Each team was given an initial endowment of candy and sodas. The endowments varied considerably, as some teams were rich and some were poor in terms of candy and soda.

Several rounds of trading took place, where candy and sodas were bartered between the nations. Careful recording of the initial endowment was conducted, and resulting inventories were calculated and checked. At the end of the trade simulation exercise, the outcome provided all participants with convincing evidence that the trading process had made every nation better off than the initial allotment of candy and soda. The economic reason was simple: trade was voluntary, so all trades were, by necessity, mutually beneficial to both teams who had conducted the trade. The trading activity was simple enough so that all of the participants could easily understand the objectives, rules, and outcomes. Yet, the activity was sophisticated, due to the highly meaningful and timely principle that was shared with, and explained to, the participants.

At the conclusion of trading, the economics of international trade were further described and explained to the audience, and the team members were allowed to consume their final endowments. Linkages were made with the activity and current world events and international agriculture. The students reported the outcome of the two presentations during class. Most of the students participated in both of the presentations, and all of the students participated in at least one of the presentations, with the exception of one student, who had out-of-town job interviews during both presentations. The content of the educational program and trading activity were both recorded and made available for future presentations.

The students were evaluated on the class project with a written assignment that required each student to describe, explain, and assess what they had learned from the project, including: (1) knowledge of course content, (2) experience working on a team, and (3) self-knowledge and awareness concerning career goals and employment preferences. The instructor identified these three categories as important, given that the graduating seniors in the class were in the process of making career choices, and would soon be asked to participate in real-world projects with other individuals.

Instructor Assessment of the Class Project

From the instructor's perspective, three major observations were forthcoming from the design and implementation of the project. The first, and most important, the subjective conclusion was that the educational program presented by the class was of exceptionally high quality, as evaluated by the instructor. The instructor attended both presentations, and came away proud and elated with the amount and quality of learning that had taken place on the part of both the student presenters and the audiences. The presentations had informative content, relevant examples, and were skillfully presented by the students. The programs were extraordinarily well received by the 4-H club members and their parents, based on the positive comments received at the conclusion of the presentations. The students did not conduct formal evaluations of the presentations, so no objective assessment of the educational program is available. However, the audience noted in their verbal comments to the instructor that a great deal of time and effort had gone into the planning and execution of the programs. As a result, the presentation and activity went smoothly, and the students were rewarded with an exhilarating sense of accomplishment.

The instructor truly believed in the students' ability to conduct a meaningful and worthwhile project, and this confidence was communicated to the class throughout the semester. By turning over control of all aspects of the project to the students, the project outcomes were more significant then expected, as reported by the students in formal course evaluations. The high level of maturity of the students, together with their sincere interest in the course material made this possible. The relatively small class size allowed the students to work together in a cohesive group. A larger class may have experienced more difficulty in working as a group in a meaningful experience with the participation of all students. The class could have been divided into smaller groups, but given the nature of the project, the instructor believed that more could be gained from a large group project with the entire class working together as a single unit.

The second major observation deals with the level of difficulty of the class project. The vagueness of the project assignment was purposeful, intended to create a realistic scenario where the students would work as a team not only on an assigned project, but also on the design and development of the project. The entrepreneurial role was considered to be an important skill for graduating seniors enrolled in Agricultural Economics and Agribusiness, since a majority of recent graduates of these two programs undertake management roles early in their career.

Early in the semester, students reported a great

deal of enthusiasm for the project. Student comments midway through the semester included the three statements that were reported during an in-class progress report: (1) "Feeling good about contributing to a greater cause," (2) "Excited to teach, because most of my time is spent listening," and (3) "Excited to get to know everyone better." Several weeks into the semester, however, the project became more difficult. Enthusiasm waned as logistical issues arose. Many of the hard-working students experienced a high level of frustration with other students who were less committed to the project goals and outcomes. The instructor viewed this frustration as a highly desirable characteristic of the project, since it is endemic in all real world situations and tasks. The enthusiasm for designing the project turned to dread when some of the tasks required time and effort, and the project had to be redesigned to realistically meet with the time available to complete the assignment. Previous authors have explored this aspect of teamwork. Christy et al. (2000) concluded, "Deliberate instruction on how to learn and work in a team setting is beneficial, as students had much more success working in teams when this instruction was provided than when it was not." Davis (1993) also considered issues associated with working in teams, and Jalajas and Sutton (1985) stated that instructors should be aware that conflicts will inevitably arise among students in teams. Future class assignments of this type could be enhanced with explicit instruction on how to work through difficulties and problems that arise in group work.

Third, by placing the locus of control and authority for the project squarely on the students, the instructor was placed in a vulnerable position. The uncertain outcome of the assignment, together with the uncertain amount of learning that would take place, were unnerving to an instructor with a teaching style characterized as controlled, planned in advance, and inflexible. One student summarized this situation: "We really had no guideline to follow and were pretty much left to do whatever we wanted." Great concern on the part of the instructor throughout the semester turned to relief and glee when the project resulted in a positive and productive learning experience, with knowledge gained about not only the economics of international trade, but also how to work effectively as a group.

Student Assessment

The students completed their assessment of the class project and their individual contributions to the success of the project as a written assignment that replaced the final examination. The students appeared to enjoy the assignment, and produced papers that were of high quality, longer, and more descriptive than what was required by the assignment. This enthusiasm for the project was an important and pervasive theme of the student evaluations. Formal evaluations of the course displayed high quantitative results for the course, but specific questions about the class project were not included in the formal evaluations conducted by the University. A typical student comment was, "I can honestly say even though this project required far more work than a final but I am far happier with the outcome, and I learned skills that I will carry with me for the rest of my life." Another student summarized the project:

I enjoyed participating in this class project throughout the semester. It was a welcome change from the usual classroom routine and provided the students with an opportunity to actually apply what we were learning in the classroom. I think the process of developing a way to explain international trade for children and youths helped to reinforce what we were learning in our own minds.

Student comments revealed that much of the excitement about the project was due to the reinforcement of the course material presented in the lectures, readings, and weekly assignments. A student explained that, "…as I watched the simulation in progress, it even helped me to realize that what we were learning in class was actually true…" The trading simulation activity, which was completely developed by the students, had an impact on many of the students in the class, as indicated by the comment, "…it [the trade simulation] made me realize how it applies to more than just trade; you can apply it to life in general."

Perhaps the most important concept that is presented in any economics course, and particularly a class in international trade, is the principle of specialization and gains from trade. This idea is the foundation of all modern economics, since the development of the concept by Adam Smith in 1776. The concept provides a powerful and useful tool to understand events and issues in the world economy and in personal and professional decision making. Not only did the project reinforce this concept, but the planning and implementation of the project as a class provided a real-world experience in how the ideas of specialization and comparative advantage can be used to produce efficient outcomes, as indicated by one student:

Our class was diverse in our ideas, career goals, and areas of expertise. Some of us were good at coming up with ideas, some were good at planning, some were good at writing the program, some were good at talking in front of others, some were good at getting supplies, and some were good at working with kids. Coming together and offering each of our specialties to the group, the group was able to benefit as a whole.

As in all group activities, the students reported some challenges and obstacles that arose during the semester: "I learned that working with others can be

difficult. Everyone has a different point of view. This may cause a lot of additional time to be spent compromising, but in the end it improves the final product." By the end of the semester, however, the students were unanimous that the hard work had been worthwhile. A quotation from the student assignments: "I learned that working in a team can be challenging and frustrating at times, however, it is also very exciting and fun." The trade simulation activity provided an effective learning experience, according to the students: "I learned more about international trade because I was actually able to see a simulation of what happens when countries trade with each other…"

Many students reported learning a simple, yet meaningful lesson: that the best way to learn something is to teach it to others. One student commented:

"…this project helped reinforce the concepts of international trade, diversity, comparative advantage, and specialization and gains from trade that we learned in the class readings and lectures. By having to 'translate' the scholarly concepts into a presentation/activity that would make sense to a younger age group, we were forced to really understand the concepts underlying each theory…"

Two additional student comments summarized this outcome: "When you teach something you tend to remember it longer. I doubt that I will soon forget this valuable bit of information," and, "…teaching something is the best way to learn it. In order to teach something, you had better know it in depth."

Implications and Conclusions

The class project on globalization was considered to be a success by both the students and the instructor. Two elements that led to the success of the project are worth noting. First, the students had made the decision to enroll in a rigorous course due to their interest in international agricultural trade, resulting in a strong motivation to invest seriously in the class project. Second, the group of sixteen enrolled individuals was small enough to form a cohesive and highly motivated team. Because of the importance of group size, if such a project were to be assigned in a larger class, the class may have to be divided into more than one group. One of the instructor's goals was for the class to discover how to accomplish a task in a large group setting. This group of students subdivided the responsibility, leadership, and implementation of the project into smaller groups, effectively delegating different tasks to workable teams.

The last four months of 2001 were a period of great uncertainty for our nation. High levels of interest existed for both international affairs and charity for others. This emotional period led to a more successful class project, as the students worked through difficulties and obstacles with respect for the other students in the class, a high degree of interest in the assignment, and a desire to make the educational program effective for the selected audience members.

The class had several student leaders enrolled with practice and experience at working with others on team assignments and projects. One student reported that it appeared at one point during the semester that there were "too many cooks in the kitchen," referring to the numerous experienced leaders involved in the group project. However, the planning and implementation of the project went smoothly, from the instructor's viewpoint. The students in the class were mature, intelligent, and competent. Their desire to conduct a meaningful project was sincere.

Based on the experience of this class, the instructor made three major observations: (1) challenging a motivated and mature students with a meaningful, yet difficult, assignment led to a worthwhile learning experience, (2) difficulties arose, but were successfully navigated, leading to an exhilarating sense of accomplishment, and (3) initially, the project appeared to be highly risky to the instructor, but resulted in high levels of learning, which provided a rewarding return to the pedagogical risk.

Given the success of the project, the major implication is how to recreate the valuable learning experience for future students. Specifically, given the value that the students found in learning the subject matter by teaching it to others, the issue is how to best provide productive teaching experiences for future students. The experience of this project resulted in the instructor's belief that careful thought and consideration should be given to assignments that provide students with the opportunity to: (1) work as a team on a challenging task, (2) create and implement their own assignments, and (3) learn course content by teaching it to others.

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