

# Outcome Assessment of a Short-Term U.S. Thailand Student Exchange Program



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## Abstract

An international student exchange program was established in 2000 between the University of Tennessee, Knoxville and Kasetsart University, Thailand. The program's objectives were to provide participants a comparative perspective of agricultural, food and natural resource industries and engender cross-cultural understanding. The program accommodated ten to twelve students from each university annually. Kasetsart University students spent the month of May in Tennessee and University of Tennessee students spent the month of June in Thailand. The hosting institution was responsible for all aspects of the study tour for the visiting delegation and for food, lodging, transportation and entertainment expenses while in the host country. Results obtained from pre- and post study tour surveys of participating students from the first three years of the exchange program clearly indicate that a significant gain in knowledge of the visited country's society, culture, and food and agricultural industries was achieved. A summary of incurred expenses for both institutions for the 2003 study tour is provided and demonstrates that such a program can be economically sustainable, assuming it is an institutional priority.

## Introduction

International student exchange programs contribute substantively to participants' individual development and international understanding (Sowa, 2002). Students who participate in either study abroad or in shorter-term study tours are more knowledgeable with respect to international affairs and tend to be more reflective and self confident (Sowa, 2002). Hayward (2000) indicates that there is strong support for internationalization among students and faculty in higher education, but that most institutions of higher education exhibit a low level of commitment to internationalization as evidenced by the low percentage of institutions that

included internationalization in their mission statement or as a priority in their strategic plan.

Cummings (2001) contends that international education is not a prominent feature of a contemporary American higher education experience; moreover, he points out that U.S. universities place their greatest emphasis on European studies as reflected in the choices for study abroad of American undergraduates, with neglect of the Middle East, Africa and Asia which are regions of considerable importance for the U.S. economy and international affairs. In regard to Asia and the field of agriculture, it is predicted that with a global population growth of 1.2% per year through 2020, urbanization of agricultural areas will continue, incomes of many of the world's developing nations are expected to rise, and global demand for value-added agricultural products will increase substantially (Council for Agricultural Science and Technology, 1999). For example, 88% of the estimated increase in global demand for meat and meat products that occurs through 2020 will be in the developing nations and nearly 50% of the increased demand in China and Southeast Asia (Council for Agricultural Science and Technology, 1999). Indeed, in a recent report from the World Bank it is estimated that by 2015, China will move from a position of crop self-sufficiency to a net importer of as much as 20% of its consumption needs for seed and grains (Ray, 2003). It is not surprising that studies project a future need for international knowledge in the labor force (Bikson, 1995), and this would certainly include those in the field of agriculture; moreover, it seems that enhanced knowledge of China and Southeast Asia would serve American agricultural graduates well.

We describe our experiences and outcomes of the first three years of a short-term international student exchange program between the University of Tennessee and Kasetsart University, Thailand. This program was designed to address the challenges and opportunities mentioned above and were an outgrowth of a sustained relationship between our universities that involved regular short-term faculty

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exchanges. Thailand typifies developing nations in Southeast Asia. Agricultural products have declined from 30% of gross domestic product in the 1970s to about 9% currently, yet 50% of the country's current workforce is directly engaged in agricultural production (Thailand Outlook, 2003). Agricultural production systems vary from small-plot subsistence farming to very intensive, high-tech, high throughput enterprises.

## Methods

With the support of our respective university administrations, a short-term international student exchange program was initiated in 2000. The program's objectives were to provide participants a comparative perspective of agricultural, food and natural resource industries and engender cross-cultural understanding. To this end, program activities were divided roughly 50% technical, 30% cultural, and, by including a home stay for all participants, 20% family life. Annually, 10 to 12 students from Kasetsart University spent the month of May at the University of Tennessee and a like number of University of Tennessee students spent the month of June at Kasetsart University. May and June coincide with the semester breaks at Kasetsart and the University of Tennessee, respectively. The host institution was responsible for organizing all aspects of the study tour for the visiting delegation. International travel costs were the responsibility of the visiting delegation, but the host institution was responsible for all other expenses associated with the study tour, including ground transportation, lodging, meals and admission to any cultural/recreational venues.

The study tour in Tennessee typically involved a variety of tours, demonstrations and activities at the University of Tennessee's branch experiment stations, visits to a variety of commercial farms, nurseries, food processing companies, the Great Smoky Mountains National Park, other statewide historical parks and sites, and several museums. During the last week of the study tour, participants resided with host families. The study tour in Thailand similarly included a variety of tours and demonstrations at Kasetsart University's branch campuses and field research stations, a variety of commercial farms, nurseries, feed and food processing companies, museums, historical sites, and Kao Yai National Park. The last full weekend in Thailand included a home stay for participating students. Ground transportation was provided by university van or bus and lodging included both university-owned facilities and commercial hotels. Typically half the program was off-campus and involved considerable travel.

Student participants were selected by the program directors from applications and nominations from academic departments in the agricultural and related fields. At the University of Tennessee

preference was given to those students who were juniors, seniors or beginning graduate students and to those who had no or limited international travel experience. Kasetsart University limited participation to junior year students who were judged to have sufficient fluency in English and were able and willing to host a visiting University of Tennessee student for a weekend home stay. To assist with host institution program planning, selections were made and communicated to the partner institution by mid-January. Participating University of Tennessee students were given course credit, expected to maintain and submit a travel journal, and present a group seminar during fall semester following their return. Participating Kasetsart University students were not given course credit per se, but their hours spent in the program were counted as hours of practical training required for their respective curriculum

Both universities provided their students pre-trip orientation programs. At the University of Tennessee, weekly, 1-2 hour orientation sessions were held during spring semester and included discussion of cultural norms and expectations, health and safety issues, rudimentary language training, and an introduction to Thai food. Current Thai graduate students at the University of Tennessee were recruited to assist with the orientation program. Kasetsart University conducted an intensive, 3-day pre-trip orientation that covered similar topics, but included intensive English language training. Following this 3-day orientation program, Kasetsart University participants were required to attend monthly meetings to practice their English.

A pre- and post-trip questionnaire was completed by all participating students during the first 3 years of the program. The pre-trip survey was administered following the orientation program and the post-trip survey was completed prior to departing for the return trip home. The survey asked students to indicate their level of knowledge of the visited country's society, culture, agricultural and food industries, and rate the visited country's agricultural techniques and agricultural education system. The survey also asked for comments on the program in general, including what they found most interesting and most surprising. Survey data were combined over years and statistically analyzed using PROC FREQ of SAS (2002).

## Results and Discussion

Survey results clearly indicate that the program was very successful in increasing participants' understanding and appreciation of each country's culture and society (Figures 1 and 2). It is indeed interesting how similar the responses of Thai and U.S. students were. For each, more than 75% of the students indicated only some or less knowledge of the visited country's society and culture before the tour, even though the pre-trip orientation sessions

included a heavy emphasis on social and cultural norms. At tour conclusion, more than 75% indicated a moderate to high level of knowledge. American students most often cited Thai hospitality and outward expressions of respect for elders as surprising and interesting. Thai students most often noted that American culture is very different from, and better than, the stereotype portrayed in the media. We attribute the significant gain in cross-cultural understanding to three factors: 1) participating students from the hosting institution joined the daily program whenever their schedules permitted, thus a considerable comraderie developed between U.S. and Thai students; 2) the study program was entirely conducted by the hosting institution, thus U.S. students learned from Thai persons and vice versa; and 3) the home stay experience which, based on comments made by both American and Thai students on the post-trip survey,

was the most memorable experience. Many short-term study abroad programs, although often more affordable than semester-long or year-long programs, are operated as “island programs” in which participants have little or no interaction with local people, especially peers (Gillespie, 2003). Consequently short-term programs are criticized by some (Marklein, 2004). The reciprocal nature of our program instead allows considerable interaction with the local people and peers while keeping it relatively affordable for participating students.

Pre-trip, both Thai and U.S. students felt they knew little of the other country's agricultural or food industries, with more than 50% indicating they had low or no knowledge, and no more than 5% indicating moderate or high knowledge (Figures 3 - 4). Both Thai and U.S. students indicated a significant gain in knowledge of the agricultural and food industries as a result of the study tour. Both groups of students

indicated that agricultural techniques were somewhat more developed than they had initially thought (Figure 5). Thai students rated U.S. agricultural techniques more highly than U.S. students rated Thai techniques both before and following the tour. U.S. students frequently commented that Thai agricultural production systems were very labor intensive, whereas Thai students frequently commented on the degree to which advanced technologies, e.g., GPS-assisted precision agricultural practices, are used at the farm level. Both Thai and U.S. students indicated that agricultural education was more highly developed than they had initially thought (Figure 6); however, the change in perception was much greater among U.S. students. Pre-trip, 24% of U.S. students rated Thai agricultural education 1 or 2 on the 7 point scale, and this increased to 55% following the study tour. The greater spread in ratings of Thai agricultural education by U.S. students was expected, given that students met a great diversity of agricultural producers, from owners-operators of large, intensive enterprises that employed the most modern technologies to rural villagers and subsistence farmers.

All participating U.S. students were required to complete and submit a travel journal. We used entries in these journals to gage participant satisfaction with the

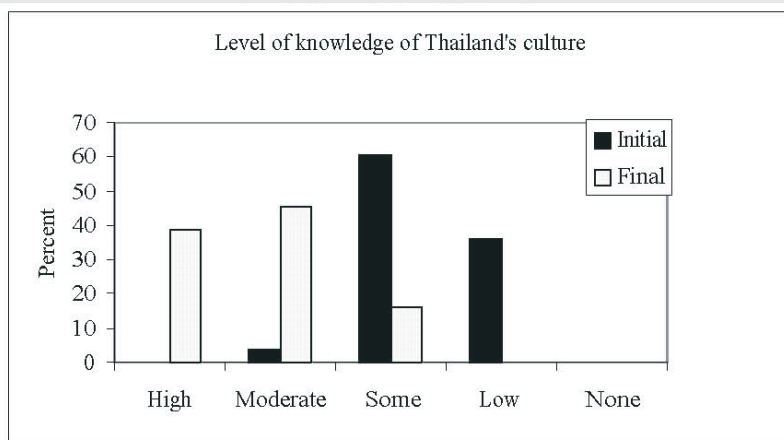


Fig.1. Pre- and post-tour assessment of Thai students' level of knowledge of U.S. culture (top, n=36); and U.S. students' knowledge of Thai culture (bottom, n=31). Data for all three years were combined; pre- and post-tour differences were significant (P<.01).

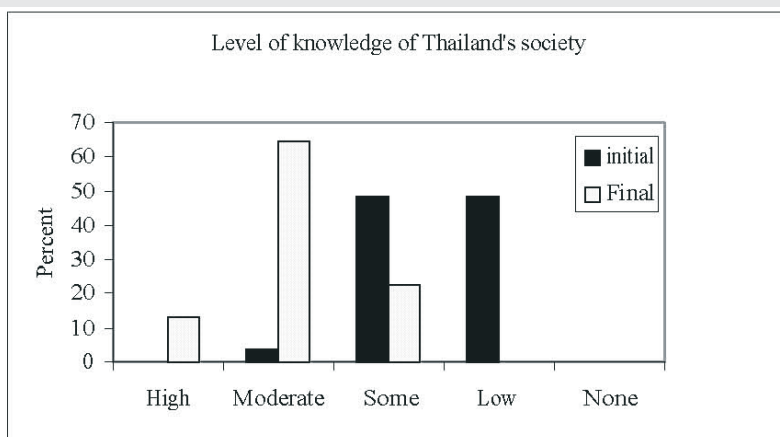


Fig.2. Pre- and post-tour assessment of Thai students' level of knowledge of U.S. society (top, n=36); and U.S. students' knowledge of Thai society (bottom, n=31). Data for all three years were combined; pre- and post-tour differences were significant (P<.01).



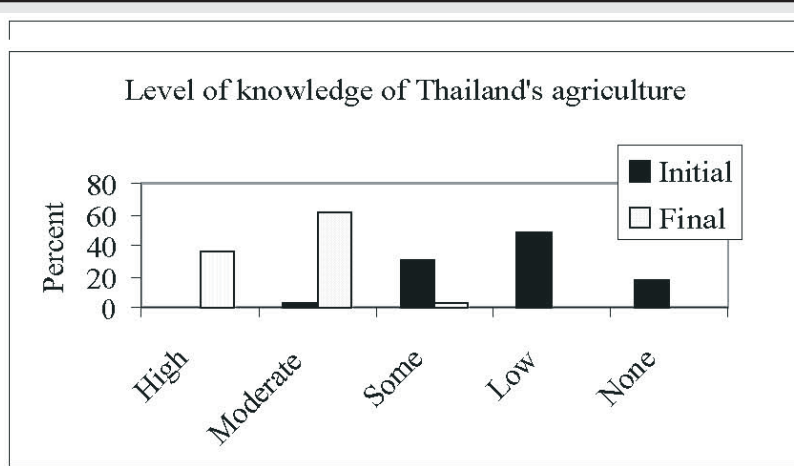


Fig. 3. Pre- and post-tour assessment of Thai students' level of knowledge of U.S. agriculture (top, n=36); and U.S. students' knowledge of Thai agriculture (bottom, n=31). Data for all three years were combined; pre- and post-tour differences were significant ( $P<.01$ ).

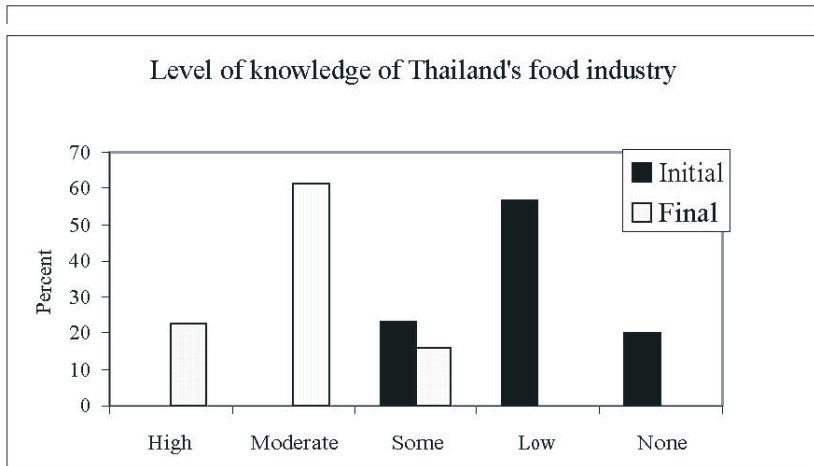


Fig. 4. Pre- and post-tour assessment of Thai students' level of knowledge of U.S. food industry (top, n=36); and U.S. students' knowledge of Thai food industry (bottom, n=31). Data for all three years were combined; pre- and post-tour differences were significant ( $P<.01$ ).

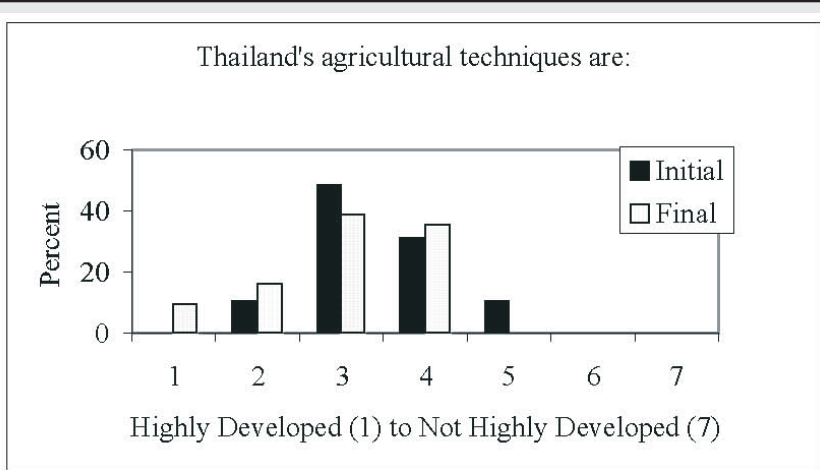
study tour and, to the degree possible, assess learning. Based upon travel journal entries, it was apparent that some U.S. students gained more from the experience than others. From the journals it was apparent which students had “immersed” themselves in the culture as the trip progressed. Journal entries of these students became more reflective as the trip progressed, and frequently included comments on the differences between, and relative merits of, American and Thai cultures. On the other end of the spectrum, each of the four years we had some students who seemed to be focused in large measure on issues such as personal comfort, diet, conflict with other group members, and homesickness throughout the study tour. These students' journal entries were much less reflective and these students were more apt to be disengaged

during tour stops. Nonetheless all students expressed great enthusiasm and excitement about their participation following their return home.

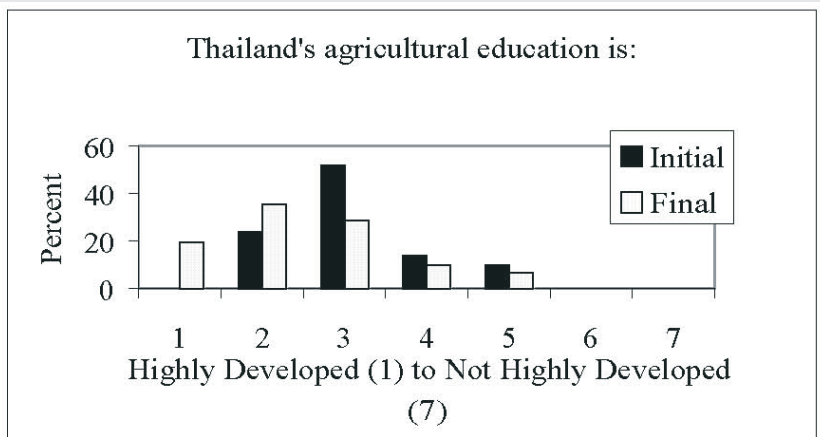
All participating Thai students had considerable English language training and perhaps one of the significant benefits of their participation in the study tour was the gain in English proficiency and confidence in speaking the language. This worked to the benefit of U.S. students. While participating in the U.S. study tour, Thai students became acquainted with U.S. participants; consequently the U.S. students had Thai friends at the outset of their study tour. This added much to their experience in Thailand given that the Thai students would engage them in a variety of social and recreational events that would not have been otherwise possible given the language barrier.

Study tours such as this are resource-intensive, and that is a definite challenge. We enjoyed strong financial support from our universities. Because this was the first international student exchange to be sponsored by the University of Tennessee College of Agricultural Sciences and Natural Resources, and given concern that it could be difficult to attract a sufficient number of participants, the first three years of the program were very heavily subsidized by the College and by grants from the University and a corporate sponsor. Cost to participating students was relatively modest. In year 4, students were expected to share a greater cost of the program in an attempt to create a financially sustainable exchange program, but we did not experience any decline in student interest with the imposition of a program fee. A summary of costs incurred by the University of Tennessee and Kasetsart University for the 2003 program is presented in Table 1. In 2003, the 12 University of Tennessee student participants enrolled in the College of Agricultural Sciences and Natural Resources were charged a \$700 program fee. Departments also agreed to contribute \$300 to the program for each student participant from that department. The 1 student participant enrolled in another college was charged a program fee.

Group travel was arranged by the program



**Fig. 5. Pre- and post-tour assessment of Thai students' opinion of U.S. agricultural techniques (top, n=36); and U.S. students' opinion of Thai agricultural techniques (bottom, n=31). Data for all three years were combined; pre- and post-tour differences were significant (P<.01).**



**Fig. 6. Pre- and post-tour assessment of Thai students' opinion knowledge of U.S. agricultural education (top, n=36); and U.S. students' opinion of Thai agriculture (bottom, n=31). Data for all three years were combined; pre- and post-tour differences were significant (P<.01).**

coordinators; however students individually purchased their airline tickets (\$850). Total cost per U.S. student was thus \$1,850 if enrolled in the College of Agricultural Sciences and Natural Resources and \$2,850 if enrolled in other University of Tennessee colleges. Total income for the 2003 program was \$14,000 and these funds were used to partially offset the costs associated with hosting the Thai delegation. The net cost to the College was thus \$6,431 and largely accounted for by travel expenses of those faculty members accompanying the U.S. students in Thailand. This could be reduced further if only one or two faculty members accompanied the students. Both the University of Tennessee and Kasetsart University view this exchange program as an opportunity for professional development of those

junior faculty who have had little or no previous international experience, hence one or two additional faculty were included for that purpose. That said, it is our experience that two accompanying faculty members is an effective minimum, allowing for those times when one faculty member should become ill or experience some other emergency that requires separation from the student group. Net expenses to Kasetsart University were \$2,971.

### Summary

Our results clearly demonstrate that short-term student exchange programs such as this are highly effective means of providing participants a comparative perspective of agricultural, food and natural resource industries and engendering cross-cultural understanding. Given that this program can be managed in a cost effective manner and that both U.S. and Thai participants profit equally, it is expected that the program will be sustainable as long as our two universities view this type of international initiative as a priority.

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**Table 1. Income and expenditures incurred by the University of Tennessee and Kasetsart University for the 2003 Student Exchange Program. <sup>a</sup>**

Expenditures	University of Tennessee	Kasetsart University
Study tour for visiting delegation:		
Lodging	\$7,328	\$1,226
Meals, supplies, admission fees	\$6,120	\$2,499
Transportation (motor pool)	\$2,787	\$1,546
Study tour abroad:		
Travel expenses of accompanying faculty members	\$4,196	<i>na</i> <sup>b</sup>
Total expenditures:	\$20,431	\$5,221
Income <sup>c</sup>		
Program fees	\$10,400	\$2,300 <sup>b</sup>
Department contributions	\$3,600	<i>na</i>
Total income:	\$14,000	\$2,300
Net expense	\$6,431	\$2,971

<sup>a</sup> The 2003 program served twelve Thai students and three accompanying faculty members, and thirteen U.S. students and three accompanying faculty members. Expenses included those of accompanying host institution faculty and staff members.

<sup>b</sup> Expenses of accompanying faculty members were handled separately and in some cases were subsidized by Kasetsart University and in other cases were in whole or in part the personal responsibility of the participating faculty member. Student program fees included roundtrip airfare; \$2,300 are estimated program fees in excess of airfare.

<sup>c</sup> Each of the 12 University of Tennessee student participants enrolled in the College of Agricultural Sciences and Natural Resources was assessed a \$700 program fee. Academic departments contributed an additional \$300 for each student participant from their department. The 1 student participant enrolled in another University of Tennessee college was assessed a \$2000 program fee. Although group travel was arranged by the program coordinators, students individually purchased their round trip air tickets (\$850).