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**An International Agricultural Education Undergraduate Model to Enhance  
Cooperation and Collaboration**

Keynote Panel Discussion presented by

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I am very pleased to be here with you today working with my colleagues to present this paper and panel presentation regarding our unique undergraduate study abroad program model. I have been in the United States on several occasions to develop and promote our collaborative program but this is a wonderful opportunity to share with you our experiences and I hope that after you hear about our program some of you might want to participate or to develop your own international initiative.

I am the International Dean at Moscow State Agricultural Engineering in Moscow, Russia. Twenty years ago I never imagined that I would have this great opportunity to address such an important audience outside the former Soviet system. However, I would like you to know, despite all of the discussions regarding the former Soviet Union, my life as a faculty member was productive as a scientific engineer and we were solving problems important to agricultural production in our system. Also, my personal life was stable, positive and we were a happy family. Sure, it is true that we did not have all of the material goods that have become common in the past few years. I would hope that I would have the opportunity to share some of my personal experiences throughout the rest of the conference.

You know that this idea of collaboration and cooperation was very popular during the Soviet period. The form of socialism that we had promoted the strong bond between your neighbors, friends and colleagues—as this was a really good way to survive. Now I am glad to see that the rest of the world is catching up to this idea. I will be very happy to tell my colleagues in Russia that socialism is alive and well in U.S. universities.

All kidding aside, the development of our new country “Russia” has enabled the growth of interests from the west and in particular this collaborative study abroad program has been a very positive project for our university. Given that our country was so isolated from the west for so many years, in particular this project has enabled the university to gain information and knowledge from the U.S. Today, we would like to explain how this project has benefited both sides and how we have collaborated to make this an effective model that others could replicate.

The model that we will explain today includes a large number of partners. There have been six U.S. universities, nearly 150 undergraduate students, five graduate students, and more than 30 professors and administrators from both sides. More than 40 Russian farms and 25 international businesses along with the U.S. and Russian Embassies has supported and participated in this dynamic program.

As part of the transformation of the country, we understood that it was important to review our curricula and better understand how our curriculum compared to what was being taught in the U.S. and other countries. To facilitate this process we invited professors from the U.S. to participate in a curriculum seminar in April 1997. In the area of pedagogy, we invited Tom Bruening, from Penn State, Glen Shinn from Texas A&M, and Allan Goecker from Purdue. During this seminar, we invited U.S. faculty to bring students to Russia to participate in

cultural tours as a way to begin building bridges. Penn State was interested in our invitation and a small team of four students and Tom Bruening came to Russia in the summer of 1997 to take part in a one-month cultural program. The Penn State team stayed at the university and the students were introduced to Russian agriculture and culture. We took the students to some of our best farms and enterprises. Part of this agreement was that we would later travel with a small group of Russian students to Penn State. In the fall of 1997, I traveled with three students and a professor to Pennsylvania to better understand the people, culture and agriculture. This initial exchange was so successful that we decided to repeat the process the following year. During these initial stages we developed a very good working relationship and we understood the tremendous benefit our students were gaining, as they were able to see agriculture first hand. It is also important for you to understand that one of the things that we emphasize in our curriculum is the development of language skills. Our students study French, German and English and our students increasingly want to understand English because they understand how important language skills are in the marketplace. When our students were in Pennsylvania, the students were able to give presentation in high school classes and to work with secondary agricultural teachers and gain a tremendous insight to American agriculture.

As a result of the successful two-year cultural program I wanted to develop a joint educational program whereby our students could simultaneously gain U.S. credits and Russian university credits. I believed that this would be beneficial to our students and to U.S. students. Unfortunately we came to understand that it would not be possible for our students to gain course credits at Penn State. However, we also concluded that our students could benefit from studying together. Since it would be impossible for a

larger group of MSUA students to find money to study in the U.S. and it was beneficial for Penn State students to study outside the U.S., we decided that a collaborative educational program at MSAU could benefit both sides.

Allow me to give you a complete description of the program so that you can see how all of the partners worked together to make this program effective. When I was asked to provide leadership for the international minor at Penn State it became very clear to me that we needed to be more aggressive in promoting study abroad programs. The research that I had reviewed indicated that less than 2% of students in colleges of agriculture were taking advantage of the opportunity to study abroad. Having had the opportunity to work in Russia for ACIDI/VOCA, and as a faculty leader for our Participatory Rural Appraisal program in Puerto Rico and my work for the United Nations in China, all indicated to me very clearly to me that both students and faculty could greatly benefit from an opportunity to participate in a study abroad program in Russia. Also, the timing was perfect as there were resources available to work in Russia and to help our students better understand the transformation of Russian agriculture. Given the importance of food and fiber and our role as international educators it seems so logical that we all need more opportunities to meet this critical need in higher education in the U.S. Moreover, study abroad has been increasingly recognized by a number of authors as one of the best ways to internationalize the curricula (Acker & Scanes, 2000; Maidstone, 1995; Platt, 2004). A recent study at the University of Florida by Irani, Place, Lundy, and Friedel (2004) suggested that few agricultural students were interested in study abroad. At Penn State, we replicated this study and found similar results that indicated that less than 2% of beginning college of agriculture students were interested in study abroad (Mamontova & Bruening, 2005). Also, according to the

Chronicle of Higher Education (2000), only about 1% of students that studied abroad in the 1999 school year were agriculture students. Knowing that the critical need exists, the challenge became how to develop a program that could effectively meet the needs of students and overcome some of the natural and artificial barriers that exist in higher education.

As you all very aware, universities want to tuition dollars to continue to flow freely into university coffers. Developing a program that would take tuition dollars away from the university is not a good solution or even a good thing to suggest. Also, it is clear that students want to continue to move towards graduation. They don't want a study abroad program to slow their progress towards graduation. This is especially true in science-based programs. Also, we recognized very early on that administrators don't want professors away from the university for long periods of time. We also believed there was a need for students to work in teams with international students—not just study language in a foreign country with 150 other students. Our model meets all of these conditions and more.

In our program model U.S. students can earn 18 credits from their own institution while studying at MSAU. This is accomplished when universities accept a syllabus and content developed from a professor at another U.S. land grant university. Each course needs to meet a minimum of 45 contact hours—the U.S. standard for three credits (15 classroom hours for one U.S. credit). In our program goal, ten U.S. students spend the spring semester in Moscow as a cohort group studying with ten Russian students. The students work together in teams on relevant Russian and international agricultural problems. The U.S. students gain Russian language before, during and after the program. Russian students are selected to participate based on their ability to speak English and overall fit for the program. As there is a competition to participate in the

program from Russian students, they are voted into the program by their peers. Russian students take all of the classes in English and work on class projects with U.S. students and the courses are graded and classes count toward their graduation. All students earn a certificate of completion.

U.S. and Russian students participate in field trips to better understand the transformation of centrally controlled agriculture to the free market system in the Moscow region. Three U.S. professors travel to Russia each spring to teach a one-month three credit course to the cohort group of U.S. and Russian students. U.S. students cannot pick and choose courses. Students must participate in the complete curricula. Differences have been made to adjust to individual university credit loads. For example, most students in Florida take a load of 12 credits and so each three-credit course became a two-credit course for Florida students. A different U.S. professor travels to Russia in February, March and April to teach for one month. Students also take two Internet communication courses to complete the curricula. U.S. students can also compete for internships in Russian enterprises. To date, students have interned in a Moscow secondary school, Monsanto, Moscow botanical gardens, John Deere, and several have interned at ACEDI/VOCA. Three U.S. students have returned to Moscow for internships after the conclusion of their program and several Russian students have come to the U.S. to study and travel.

MSAU students have benefited in significant ways from this program. First of all it is one thing to study a language and completely another skill level to take courses in the language that you are studying. Our students enter the university in Moscow thinking that they will be English language interpreters. Few really have this high skill level when they leave the university. But to work in an international firm is extremely valuable for our students and to be able to learn from native English

language speakers is a great benefit for these students. Also, the American professors teach using active teaching processes and when our students use this approach it helps their thinking skills and thus this active teaching approach better prepares our students for our domestic workforce. Today more than 11 graduates of this program are working at John Deere in Russia and many more are employed in a variety of jobs where they are using skills learned in the program. In the John Deere positions graduates are able to use their English language skills and engineering and machinery knowledge to really make an impact on Russian agriculture. Also, the salary that they receive is far beyond what they could earn as interpreters or most in most other businesses.

U.S. students are encouraged to participate in a humanities course at Penn State prior to departure to Russia. Each fall semester, all U.S. participant students are encouraged to take Russian 100. This is an Internet-based course that we placed online at Penn State to provide background information about Russian history, culture, and agriculture (non-Penn State students did not pay for these credits). Also, all U.S. students are asked to study Russian 1 (three credits), either at their home institution or as an online course that we teach from Penn State (non-Penn State students did not pay for these credits). Using Polycom (Internet video conferencing) we are able to teach Russian language with an agricultural twist. For example in this program it is important to be able to say, "How many milk cows do you have on this farm?" (in Russian). Both of these courses meet humanity requirements and they provide background information for our students preparing to travel to Russia (Zhai & Scheer, 2001).

### **Program Support Partners**

It is important for you to know that we have been able to gather great university, grant, business support, and parental support to make this program happen. The first

support came from MSAU and Penn State College of Agricultural administration. Through tiny amounts of seed grant dollars (\$2500 per year) at Penn State we were able to host our Russian colleagues during the first two years of the cultural program. Later as we moved to the expanded study abroad program, colleges of agriculture granted students scholarships to travel to Russia (airfare was paid and visa costs). When the National Security Grant was developed (\$420,000), it paid for travel scholarships and visa expenses of students. This grant also paid for the development of the online courses and initially paid for the language instruction. Since the cost of participation (housing and food costs) is less than a typical semester at Penn State, Montana State University, or the University of Florida, students are able to save money while studying abroad. Parents of students also supported the program by allowing their participation. For a number of individuals participation in this was really a leap of faith. For many, Russia is a scary place. Perhaps it really helped a number of parents of Penn State students when I have been able to tell them how two of my daughters enthusiastically participated in the program.

A significant part of the success of the program can be attributed to the large number of partners that have added value, experiences and depth to the educational opportunities for both sides. For example, the program could not have happened without the tremendous support of our partners at ACIDI/VOCA. The management team has seen the value in this program and the impact on Russian student population. Each of the eight years ACIDI/VOCA has supported the participation of the U.S. professors. Leveraging their support was a key factor in obtaining the NSEP grant. Pragmatically it would have been very difficult to develop this program without their enthusiastic support and facilitation.

### **Developing Trust**

The key in developing an effective study abroad program is the trust that must be in place between the partners so that everyone is assured that each side will deliver when it is needed. The first stages happen in the cultural program. Getting visas, buying airplane tickets, getting picked up at the airport, all of these steps created the needed foundation of trust that it became clear that when each side made a commitment to action the needed follow-through would occur on the other end. It takes trust to get on an airplane without a through knowledge of the language and know that you will be completely taken care of after you arrive at your destination. Perhaps more than any other element of the program this is the key to success.

There is another point worth noting and this is the fact that this project is not based on transferring funds to Russia. The focus of the project has always been on learning opportunities for students on both sides. Contrary to many other types of initiatives this project costs a lot to operate in Russia. All of the grant money obtained on the U.S. side only helped the American students.

### **Coordination**

From a coordinators perspective, the strength of this international agriculture experience program has been its synergistic nature. As already stated, the program involved many components that enriched the experience for students and professors who participated. Even though there were many components to the program, the entire program was not difficult to explain to students who indicated an interest in participating. Certainly, the whole of the program was bigger than the components. The design of the program convinced me that it was worth my time to commit to recruiting students and participating as a visiting professor. Without program directors really considering it, experiential learning in a real international context was

at the heart and soul of this program. Gibbs (1988) experiential model gives credence to this assertion from a post hoc perspective. Gibbs provided details of ways in which the experiential learning cycle can be formally implemented, with respect to: planning for experience; increasing the learner's awareness of experience; helping the learner to review and reflect upon experience; and providing substitute experiences where 'real-life' ones are unavailable or inappropriate. Regarding this imitative, Gibb's model fits well within this initiative except for providing substitute experiences where 'real-life' ones are unavailable or inappropriate because this program provided authentic experiential learning in a 'real-life' context where substitute experiences were unnecessary.

MSU's College of Agriculture, like other land grant colleges of agriculture, has set strategic goals to enhance the student learning experience to ensure society-ready and global-ready graduates. Explicit in this goal is the ability of graduates to work effectively and competently in the international community. To enable our students to more effectively compete in the world, we must broaden our concept of the classroom and be inclusive of international networking and active learning that comes with being a partner in global solutions (Mason, Eskridge, Kliewer, Bonifas, Deprez, Medlinger Pallas, & Meyer, 1994). Increasingly, students are being faced with competition in the global market place and a need to have a better understanding of the world economy. It is from this philosophical foundation that participating college of agriculture supported and participated in this international agriculture exchange experience that provided an outstanding set of experiences that allow our graduates compete in a broader context than their home state.

#### *Coordinator's Role in the Program*

Montana State University College of Agriculture students have participated in the

MSAU exchange program since 2001. A total of nine Montana State University students participated in the program and two of those conducted internships while in Moscow. Montana is a state far removed from immigration and the world's impact. Montana citizens and its students, in general, are physically and socially isolated from the rest of America and from the world. In Montana many consider this situation a blessing. However, because of this situation, Montana State University students and professors must be proactive in their approach to finding meaningful international agriculture experiences that give them the 'tools' needed to operate in an international setting. This context became a source of motivation for me as coordinator of the MSAU exchange program. A number of Montana State University College of Agriculture students are very aware of their isolation and, therefore, were eagerly looking for an international experience that gives them a unique opportunity to engage in an international experience that had the potential to change them mentally as well as give them a different perspective of the world.

#### *Recruitment of U.S. Students*

After the first year, the recruiting strategy mainly involved students recruiting students. The coordinator really became the facilitator when recruiting was in full swing. Former participants were asked to design flyers and post them in key areas across campus. Early in the fall semester the time and location of a "Russian Exchange Seminar" was announced by former participants in College of Agriculture courses with large enrollments. The seminar was far from formal. Instead it was held at a local pizza parlor adjacent to campus where all in attendance were provided with a free meal. Usually ten to fifteen students would attend the seminar. Former participants became very effective recruiters at the seminar, which really evolved into more of discussion of how academics can be

satisfied, tuition, housing, and transportation costs, and travel within Russia itself were addressed. At times, even parents were directly recruited (convinced) by the coordinator and other program staff. If parents were recruited, it was because of their reluctance to allow their child to live in the “Former Soviet Union” for a semester. However, after learning about the benefits of the program, parents became strong supporters of the initiative and a few even traveled to Moscow during their child’s semester abroad.

Once the program was fully explained to potential participants, the “value” of the program became evident. Students were elated to find out that they would pay in-state tuition for their semester abroad. Once parents and students discovered that living costs were equal to or less than Bozeman, Montana and that travel costs would be considerably subsidized, potential students began to see the feasibility of their active participation in the program. To finalize the “deal”, potential participants were given last year’s participant manual that provided plenty of reading material to review and digest. In addition, former participants made follow-up phone calls and visits to answer any questions and provide support.

#### *Professional Development of Faculty*

Although the primary focus of this program was the learner, a complementary objective of the program was to enhance collaboration in education among 1862 land-grant institutions. Courses offered to students were taught by a variety of professors, who represented diverse agriculture disciplines at 1862 land grant universities. Professors from The Pennsylvania State University, University of Nebraska, Montana State University, Texas A&M University, University of Florida, and University of Maryland taught a course during this program. Participating professors gained valuable professional development experience through their participation.

To teach a course to students from another country and culture is a worthy undertaking that gives faculty a professional development experience that cannot be realized on their home campus, but was supported by their peers. Professors also need reassurance from peer professors that international teaching and service are excellent experiences that will enhance career development (King & Martin, 1994). Faculty were able to work with Russian students, deliver effective instruction, provide guest lectures, participate in agriculture field trips with students, and begin discussions with MSAU faculty on topics of mutual professional interest. Faculty’s knowledge about Russian agriculture grew while their opinion about their Russian counterparts became more positive. For some participants it was their first international experience and for others, it was their launching pad to delve further into international agriculture teaching and research.

#### *Graduate Student Opportunities*

Graduate students in colleges of agriculture often want to participate in an international agricultural experience, but there are many obstacles that a typical graduate student must overcome before agreeing to participate. These obstacles can include lack of funding, setbacks in anticipated graduation date, and helplessness to conduct research. Furthermore, some graduate students are married and may have children; an obstacle that is related but not addressed in this paper. Through this model of cooperation and collaboration, many opportunities were created to remove the above obstacles as well as provide a meaningful internship for graduate students.

This model has allowed graduate students to remain on assistantships while progressing through independent graduate coursework. Funding has been provided through the colleges of agriculture and from outside grants to pay international expenses such as airfare, room, board, and stipends.

Many international agricultural experiences offered to graduate students include one-week study tours or one-year fellowships and exchange programs. However, one-week study tours do not offer the experiences of living and working in another country that aid understanding of the culture and agriculture of another country. A one-year fellowship or exchange program often delay anticipated graduation dates and can be difficult to incorporate into a program of study. This model has allowed graduate students to spend a semester (four months) abroad that provides meaningful experiences of living and working in another country and can be easily incorporated graduate student's program of study.

Conducting research in another country can be challenging as a graduate student with little or no experience. Often there are few initial contacts and little is known until the graduate student actually arrives to the foreign country. However, this program provided numerous agribusiness contacts in Russia. Faculty members, both Russian and American, associated with the program also proved to be excellent resources. There were also opportunities to conduct research in agricultural and life sciences with topics including animal husbandry, food processing, plant science, animal science, and marketing.

Specifically in the Russian-American agricultural study abroad program, the graduate student's responsibilities were to serve as an on-site coordinator and teaching assistant. Particular tasks included helping coordinate field trips, assist visiting American faculty members, coordinate the weekly online newsletter, and grade undergraduate student papers submitted in the international agricultural seminar. The graduate student was still enrolled at the University of Florida taking independent study courses in leadership and international agribusiness as well as research hours. Research conducted by the graduate student during the involvement with this program consisted of the acceptance of biotechnology

by Russian villagers, critical thinking skills of Russian villagers concerning the economy, critical thinking dispositions of Russian students, use of journaling to improve critical thinking skills, and the influence of student's problem solving style and cognitive climate on student achievement. Additionally, through the excellent rapport with John Deere—Russia, the graduate student was able to work closely with John Deere managers to conduct a market analysis of John Deere's participation in the Russian tractor market. The graduate student was able to present the findings to the John Deere—Russia managers as well as discuss organizational change theory regarding leadership styles used in the Moscow office.

Graduate students are a unique group with different obstacles to overcome when considering participation in an international agricultural experience. This model has provided graduate students with unparalleled opportunities and benefits when compared with the one-week study tour or the one-year fellowship.

#### *Developing a Community of Learners*

Over the past seven years, the NSEP Study Abroad Program has been successful at developing a cohesive community of active learners. Students who participate in the program are provided with opportunities to interact with other students from as many as six higher education institutions from across the United States, and with Russian students from the Moscow State Agroengineering University. Both Russian and American students interact not only in class, but also in the hostel where they reside during the school semester.

#### *U.S. Student Interactions*

Although the program takes place in Moscow, thousands of miles away from home, students have the opportunity to learn more about the United States and the diversity that exists within it. Bringing together students from different universities

from across the nation allows for American students to interact with each other and to develop relationships which are likely to continue once they have completed the program.

These relationships provide many benefits to the American agricultural industry. Those who participate in the program are usually involved in agriculture in their home states. Because the students come from different parts of the country, they naturally tend to be very knowledgeable about agriculture in their area, but have little knowledge about agricultural practices in other states. The benefits of having students from across the nations engage in open discussions about differences and similarities within the industry are significant.

Living arrangements in Moscow provide for interesting and meaningful growing experiences. Because of the nature of the hostel, students from different states and universities end up rooming together for the duration of the program. With a program that lasts an average of sixteen weeks, opportunities for compromise, cooperation, and even negotiation are always available. Living in a hostel with Russian students only adds to the cultural experience.

#### *U.S. to Russian Student Interaction*

Interactions between the U.S. and Russian students are a key component of the program. For instance, having two completely different perspectives about agriculture in one classroom can provide for stimulating educational discussions. When you consider the fact that American students come from all over the country, and that Russian students come from many different regions of Russia, you are guaranteed more than just two different perspectives on issues.

American students also have an opportunity to travel to a Russian classmate's household to spend a couple days with the student's family. This is typically an eye-opening experience that

both the Russian and American students tend to enjoy the most. When American students leave the capital of Moscow to see what life is like in villages sometimes hundreds of kilometers away from the city, they come back with a much greater understanding of the Russian culture. After the experience, students tend to be more sensitive and willing to embrace the Russian way of life, regardless of how different it may be from their own.

The focus of this project was and is on education and how to make our students global graduates that can work effectively in a dynamic and ever-changing world. Clearly future graduates will be able to work effectively across languages and cultures to meet the needs of clients and business interests. As international educators we need to redirect our efforts to find ways to replicate this collaborative study abroad program to other countries and to provide more opportunities for students to engage in international study abroad opportunities. In a recent Internet article Lorenz (2006) indicated that bilingual language skills are the hot new skill to make our graduates more employable. Certainly Spanish language was the most important language to obtain, but Russian was one of the three languages mentioned in the article as a skill that will help graduates obtain employment. Colleges of agriculture have the unique opportunity to use our food and fiber system as a universal path to collaborative partnerships. We just need to find new creative ways to make this happen. As we move forward, we ask you to consider joining our program in Moscow to enhance your students' careers and future employment opportunities.

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