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Articles intended for publication should focus on international agricultural education and/or international extension education. Articles should relate to current or emerging issues, cite appropriate literature, and develop implications for international agricultural and extension education. Manuscripts, or portions of manuscripts, must not have been published or be under consideration for publication by another journal.

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From the Editors

In this issue our annual invited seminal article focuses on “A Brief Review of the History of the AIAEE.” Written by Dr. Meaders, we hope you take time to read about our history and how far we have come in 25 short years. I am sure Dr. Meaders would enjoy hearing from some old friends, you can contact him by email at meaders@msu.edu This issue also offers an extended editorial related to “Twenty-five Things We Love about AIAEE.”

A new look for the Journal of International Agricultural and Extension is coming starting with the Spring 2010 issue. We will be migrating the publishing of JIAEE to a content management system operated by Cybersense. What does this mean to JIAEE members and readers? First, JIAEE will only be available online. In its current print format, the Journal was no longer sustainable. At the recent JIAEE Board Meeting in San Juan, Puerto Rico, the Board voted to make this move. Second, moving to this format will provide broader exposure of your research to the world, by making it more easily indexed and searchable. Third, we will be accelerating the publication process, but publishing accepted articles as they are ready instead of waiting up to four months for the next issue to come out. Fourth, the new system will integrate all of AIAEE’s web presences: the webpage, JIAEE fasttrack manuscript review system, AIAEE fasttrack proceeding review system, and JIAEE CyberPress. We are really excited about the move to this new system and hope you will be as well. Keep an eye for email updates as we bring this new system online.

We would also like to introduce our readership to Dr. Brenda Seevers of New Mexico State University. Dr. Seevers will begin her term as managing editor on January 1, 2010. She will be responsible for managing all prepublication issues related to JIAEE. Dr. Seevers will be traveling to Texas A&M University in early January to undergo a week long training program. If you get a chance, please send Dr. Seevers a congratulations email <bseevers@ad.nmsu.edu>. Dr. Kim Dooley will begin her term as executive editor on January 1, 2010. She will be responsible for setting the overall direction of JIAEE and for post article acceptance issues including publishing manuscripts and financial oversight. Dr. James Lindner will begin his term as past editor on January 1, 2010. He will be providing leadership as we transfer to our new content management system.

Sincerely,

James R. Lindner, Executive Editor and Kim E. Dooley, Managing Editor

Journal of International Agricultural and Extension Education
A Brief Review of the History of the AIAEE:
The Beginning and the First Ten Years

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Abstract

A review of the beginning and first ten years for the Association for International Agricultural Education which later was renamed the Association for International Agricultural and Extension Education. The activities and three major events prior to the formation of the AIAE in April 1984. The development of purposes, events, publications and involvement of members are reviewed primarily from 1984 through 1994. Names of key individual members and leaders are mentioned in connection with particular events. General references used by the author are listed at the end.

Keywords: History, organization, annual meetings, publications, mission, officers, development, future
Introduction

The Association for International Agricultural Education (AIAE) was officially organized, adopted a constitution and elected officers at a meeting held at the State Department in Washington, D.C. on April 6, 1984. The name was changed at the Annual Meeting in April 1987 to Association for International Agricultural and Extension Education (AIAEE). In April 2009 the AIAEE celebrated its 25th Year while holding its annual meeting in Puerto Rico. The following article is intended to provide some background information about the years prior to the formal organization plus some highlights for the first ten years.

When dealing with history it is important to recognize that impressions are very personal and that different individuals may have participated in or observed the same events but have drawn different impressions about them. The following observations and recollections are those of the author and hopefully, they will stimulate others to reflect on their own memories about the events and activities of those years.

Actions Leading to AIAE

The AIAE was a consequence of actions related to the perceptions of individuals and groups with concerns for people about food, health, and general well being not only in their own communities and states but around the world. My reflections go back to the period after World War II. That period of military service by hundreds, yes thousands, of USA citizens, in the military actions across the Atlantic and the Pacific, which brought a new sense of awareness of peoples and cultures around the world. Those men and women who were fortunate enough to be able to return home, took with them an awareness of other cultures, other customs. That awareness triggered a movement of many young people to relocate from their original home communities to areas throughout the continental USA so that sons and daughters more frequently than before the war sought careers in other parts of their country. The opportunities provided by the GI Bill of Rights for education opened the doors for change. Finally, the U.S. governmental actions to help reestablish functioning governments and economies in the countries which had been defeated provided an organized basis for what is now commonly called international development actions. The emphasis on improving agriculture and food production in new and emerging nations, an emphasis seen through government actions, provided opportunities for agricultural educators in the USA to become involved in international projects.

In the early 1950s there were requests from U.S. government agencies and UN organizations for agricultural educators to assist with food and agricultural projects in countries such as India, Philippine Islands, Cuba, Taiwan, Japan and others. By the late 70s there were many agricultural educators who had been directly involved in short term and long term assignments in many countries, helping to improve food production through educational programs to prepare teachers of agriculture and agricultural extension workers. In the spring of 1978 a survey was conducted by Meaders to get an inventory of international experience and interest among agricultural educators, primarily teacher educators. Responses from 63 persons in 38 states indicated a wealth of experiences and a potential source of practical experiences.

In 1981 an Ad Hoc Committee on International Agricultural Education within the AATEA (American Association of Teacher Educators of Agriculture) reported that “at least 25 AATEA members, 27 foreign countries, and 19 United States Universities” were involved in international programs during 1980-81.
Three other meetings in 1983-84 had considerable relevance to the actual formation and initial direction of the Association for International Agricultural Education. First, was a conference held at Sam Houston State University (SHSU), Huntsville, Texas on April 20-22, 1983. The key organizer was Dr. David Riley, Director of the Title XII Strengthening Grant at SHSU. The international seminar was designed to bring together agricultural educators who were interested in improving educational systems in developing countries. A list of the ten guest speakers for the seminar illustrated the international scope of the talent brought to that meeting.

The second meeting was a Seminar on Agricultural Education in Africa, August 23, 1983, held at the Agency for International Development, Bureau for Africa, Washington, D.C. The seminar was “organized to facilitate a sharing of ideas among experts in development of agricultural education. Its purpose was to record recommendations for an AID strategy on agricultural and extension education in sub-Saharan Africa.” Future leaders in AIAE who were active for that seminar included Dr. William L. Thuemmel and eight other future members of the association. Dr. Thuemmel was a key person in the planning and organizing of the meeting.

The third meeting was held near Kansas City, February 1-3, 1984. It was held at the Best Western Airport Inn, Platte City, KS. Dr. Burton Swanson, Dr. Larry Miller and others have shared personal notes from that meeting. David Riley was instrumental in the arrangements for this meeting near Kansas City. Dr. Thuemmel prepared a record of the meeting which was included in the March 1984 issue of the AATEA Newsletter. There were three developments from that meeting which have been key for the beginning of the Association. They were: 1) A five-person steering committee composed of Frank Bobbitt, David Riley, Hugh Rouk, Burton Swanson, and William Thuemmel was assigned to develop plans for establishing the Association for International Agricultural Education and to develop plans to strengthen its linkages with various international organizations; 2) prepare plans for a one-day meeting in April at the New State Building, Washington, D.C. for implementing the new organization; and 3) to plan AATEA/AIAE involvement in the AID-sponsored conference on Agricultural Education in Africa to be held in Yaounde, Cameroon during the summer of 1984.

It must be noted that not all agricultural teacher educators or their departments were enthusiastic about being involved in international work. In a memo dated March 29, 1995 which I received from a young faculty member at a prominent midwest university, the writer was responding to my request for memories about the beginning of AIAEE. He indicated he had attended the meetings in the late 70s and early 80s in his attempt to better serve his graduate student advisees and to foster his growing interests in expanding my world view of agricultural education. He was further motivated by the prospect of assisting his department to begin to internationalize its curriculum and its involvement in international projects. He went on to offer a comment about how that Department had been domestically oriented and provincial. He had experienced faculty who were vocally and adamantly opposed to an international dimension to the mission of the (their) department. However, he clearly stated how over the next decade the program of their department evolved to substantial involvement in international activities and for such work to be a specific dimension of their mission statement.

The Organizational Meeting
The organizational meeting with adoption of a constitution and election of key officers for the Association for International Agricultural Education (AIAE) was held in Washington, D.C. on April 6, 1984. Thirty-
two agricultural educators and related professionals attended, representing 14 universities, the U.S. Agency for International Development (USAID), International Agricultural Development Service (IADS), World Bank, Kalamazoo Spice Extraction Company, Knockalva School in Jamaica and the Future Farmers of America. After morning and early afternoon meetings regarding need for and scope of agricultural education in international agricultural development, opportunities for support within BIFAD and regional bureaus of USAID, and strengthening of linkages with the private sector, the constitution and bylaws were adopted. The officers and executive board members elected were as follows:

Officers:
Chairperson,
Burton W. Swanson, University of Illinois
Vice Chairperson,
William L. Thuemmel, University of Massachusetts
Secretary-Treasurer,
Lennie H. Gamage, FFA

Executive Board Members:
Robert E. Julian, University of Idaho
O. Donald Meaders, Michigan State University
David J. Riley, Sam Houston State University
Hugh F. Rouk, Oklahoma State University

Membership was set to begin July 1, 1984 with dues as follows: Regular Members, $10.00; International Members, $5.00; Student Members, $3.00; and Honorary Members, No Fee. Some of the additional planning included presentations by the officers at meetings of related national and international organizations such as AUSUDIAP, NASULGC and others to inform interested individuals about the purposes and goals of the new Association.

The stated purposes in the original constitution for the AIAE were as follows:

Provide a medium for exchange of ideas and information relating to international education programs in agriculture and rural development

Provide a liaison on international agricultural education between colleges and universities, government agencies, private industries, foundations, international agencies, and international agricultural educators on a global scale.

The First Meeting of the Executive Board
The first meeting of the Board was held in Yaoundi, Cameroon on July 26, 1984, while the members were attending the Agricultural Education Workshop sponsored by the Education and Human Resources Division, Office of Technical Resources, Bureau for Africa, AID/Washington. A quorum of four board members (Swanson, Rouk, Riley, Meaders) were present plus one visitor, James Christiansen, Texas A&M University. Important items which were discussed included a) a sample brochure with a logo, b) a personnel resource survey with options for possible release of information upon request, c) a one-page Newsletter which Rouk and Riley agreed to produce for release in the fall of 1984, and d) initial planning for workshops designed to improve skill of agricultural educators who want to get started in international work (Riley agreed to initiate planning). Most of these items proved to be critical for the successful beginning of the Association. In addition, plans were initiated for the next Board meeting to be held December 4, 1984 at New Orleans, at the time of the annual AVA, AATEA, and other educator meetings.
First Annual Meeting for AIAE

The planners for that meeting in 1985 were aware of the lack of precedents and the peril of setting new procedures for the beginning of the Association. Arrangements were made for the meeting to be held at the National 4-H Center, 7100 Connecticut Ave., Chevy Chase, Maryland April 25-26, 1985. Fifty-nine agricultural educators and related international development specialists participated in the two-day conference. The participants represented 20 U.S. universities, five developing countries (Cameroon, Egypt, Iraq, South Korea, and Venezuela), the U.S. Agency for International Development, the World Bank, the U.S. Department of Agriculture, and two private consulting firms.

The conference program featured a one-half day workshop on AID procedures, an update of AID projects and activities in agricultural education and rural development, a presentation of professional papers session, and an AIAE annual business meeting. Nineteen professional papers were presented and discussed in three concurrent sessions. A $15.00 conference fee was collected upon arrival to cover miscellaneous conference expenses, 3 coffee breaks and two receptions.

It is important to note some of the procedures which were used at this first conference. The registration was handled by graduate students, each presenter of a paper was requested to bring 50 copies, double punched on the left-hand margin to facilitate binding, and the papers were then assembled at the conference.

The concurrent presentation sessions were organized so that each presenter had a total of fifteen minutes for presentation, five minutes for a discussant plus questions from the audience.

The concurrent sessions each had a theme: a) Agricultural Schooling/Extension Education, b) Development Strategies/Technology Transfer, and c) Educational Programs on U.S. Campuses/Meeting Developing Country Needs.

The Association business meeting resulted in several decisions with long-term implications in addition to an election of new officers. Dr. Thuemmel automatically moved from Vice-Chairperson to Chairperson; Dr. David Riley was elected to the Vice-Chairperson position; and Dr. Jan Henderson was elected to the vacant 3-year term as a Board member. A resolution was accepted to develop an amendment to the by-laws to provide for representation by student members on the Board. A program planning committee for the 1986 annual conference was designated and the Publications Committee reported on value and feasibility of publishing a journal. The date and place for the 1986 meeting was set for Washington, D.C. during early spring with possible sites: National 4-H Center; a hotel in Rosslyn, Virginia; or a campus facility at the University of Maryland in College Park.

Indications of Change & Development

Change seems to have been a characteristic which was built-in for the organization. Over the first few years the members and officers freely proposed and enacted changes as it became evident that they were needed. The organizational format soon changed. There had been no standing committees. Within a few years the office of Secretary-Treasurer was divided into two separate offices. One of the Board member positions was officially designated for graduate students. Then the Board was called the Leadership Team and consisted of: President, President Elect, Past President, Secretary, Treasurer, Editor of Newsletter, Editor of Journal, Committee Chairpersons, Graduate Student Representative and one Board Member at Large.
Publications

A Newsletter, The Informer, was published the first year of the organization and continued each year thereafter. Usually it was published three times each year. Its purpose was to provide information to the membership about Board meetings, annual meetings, offer an opportunity for sharing news about activities and planned events, as well as promoting the association. The first editor was Hough F. Rouk followed by a series of editors who usually held the office for two or three years.

A Journal was started in 1994 with Dr. Jack Elliot as the first editor. It started with two issues each year until 1997 when a summer issue was added to provide an opportunity to publish outstanding papers from the annual meeting. The Journal had been a subject of discussion from the time of the first annual conference and a subject of a committee for many years. The Journal of International Agricultural and Extension Education is a refereed journal and recognized for its high quality articles. It usually includes three types of articles: feature articles, commentary articles and tools of the profession articles. It provides the profession with an excellent means for sharing on a global basis articles which deal with results of research and on topics of current and emerging interest.

Involving Participants at Annual Meetings

The first annual conference involved graduate students in the registration of participants, the management of the concurrent sessions for presentation of papers, and even in the assembly of sets of the papers. The graduate students have a tradition of participation both as members, as a board member, and as organizers. They were encouraged to help raise money at the annual meetings through ‘silent auctions’ and ‘sale of T-Shirts’, with the money to be used for scholarships to help graduate students pay the expense of travel to the annual meetings. From the beginning the participation of the graduate students was viewed as an educational plus for all of the participants, young and older.

One special activity needs mention. At the 1995 annual conference Dr. Edgar Persons, University of Minnesota, took the leadership role for developing the basic framework of a handbook on how to organize for a purpose. The members in attendance responded to seven questions about organizing and from that exercise came a publication: Lets Organize: A Handbook for Helping Groups Organize for the Promotion of Agricultural Education and Extension.

Mission/Purposes

The two purposes for the organization, stated in the original constitution, provided the basis of many discussions. Those discussions were brought into focus again by Dr. Clifford L. Nelson, president 1987-88, when he brought to the Board meeting in February 1988 for discussion a paper, “Positioning AIAEE for the 21st Century: The Next Steps.” The Board urged him to use it as the keynote address the first afternoon of the 1988 annual meeting. That was a catalyst which eventually resulted in adoption of wording for use in promotional brochures of the purpose as “...an international professional association linking agricultural educators and extension practitioners aimed at strengthening agricultural and extension programs and institutions worldwide.”
The brochure identified six objectives which are stated in brief as:

Serves as a catalyst, bringing the expertise of educators globally to meet needs in agricultural development

Promotes research on agricultural and extension education programs around the world

Provides a forum for discussing research/issues with a global perspective

Establishes and expands global networks for dialogue and partnerships

Collaborates with international development agencies in designing strategies

Welcomes diversity in its membership and actively seeks the participation of people from diverse ethnic origins and geographic areas.

Promotion of Learning about International Dimensions of Agriculture

A major concern over the years has been to help students, at all levels of education from elementary schools through university, see themselves as part of the world, not just as members of their particular community, state or nation. Those efforts have been made through many individual efforts and even through development of new courses and programs at individual institutions. There have been some group efforts during the ten years after the organized beginning of the AIAEE for promotion of learning about the global nature of the agricultural industry. Many of the members and leaders in the Association have been involved in those efforts. Special mention must be given to one of those major efforts. It was led by Dr. Robert A. Martin, a long-time member and a president of AIAEE, who was chairperson of the National Task Force in International Agriculture. Over a three-year period they developed three volumes of student activities designed for use by teachers of agriculture to infuse global concepts into the study of agriculture. The personnel involved in the work of each team were teachers of agriculture, representatives from state departments of education, and representatives from agricultural education programs at universities. The first volume published in 1989-90, involved teams from two states, California and Michigan. The second volume published in 1990-91, involved teams from three states, Ohio, Iowa and Pennsylvania. The third volume published in 1991-92, involved teams from two states, South Dakota and Minnesota.

The results from those efforts are not known to me but the growing concerns in recent years for the impact of global marketing, global financing, global climate change and seems to underline the importance of those educational efforts. Thomas Friedman’s publications in 2005, The World Is Flat, and in 2008, Hot, Flat, and Crowded, accentuate the political and social importance of the international scene, not only for agriculture and natural resources but for all groups.

The Future

The AIAE (AIAEE) became a reality because there were concerned professional agricultural and extension educators who were directly and personally involved with development programs in, not only the United States, but also in developing countries. They responded to requests by other organizations and governments for assistance in improving agriculture and natural resource programs through education. The circumstances in 2009 are quite different from those in the 60s, 70s and early 80s. Perhaps the most dramatic changes are in the communication technologies which seem to make the world seem smaller and closer to individuals. But the challenges are as great as ever, even
though they may seem to be different. The acknowledgment of different cultures and languages is still at the heart of effective methods for helping bring about the changes which make for a better life and greater opportunities to people around the world.

References


Prior to the 25th annual conference in Puerto Rico, birthday letters for AIAEE were solicited from the membership in an effort to document what the organization has meant to its members. As shared in the request, a content analysis of the letters was conducted to determine major themes in an effort to preserve the history of AIAEE. Seventeen letters were analyzed, yielding 15 categories, along with a “top 10” illustrating what is loved about AIAEE. We dedicate this article to those visionary leaders, who over 25 years ago came together to create AIAEE…Thank you!
25. **History of AIAEE:** A few letters were from individuals who were involved with the organization from the very beginning.

Robert Martin states,

I participated in a meeting 25 years ago during which the idea of AIAEE was created. This was a small group of people having an interest in forming an international organization or possibly adding to an existing organization a special interest group on international agriculture. We met in a small, cheap hotel room on the outskirts of Kansas City, Missouri, in March, 1984. After considerable discussion the idea for a new organization was developed. The early days of AIAEE had us meeting at the National 4-H Center near Washington, D.C. so we could have access to national leaders in international agriculture.

Steve Jones was working on his PhD when he first heard about this new organization. “I was able to attend the 1984 Kansas City organizational meeting. Thanks to the leadership of Bill Thuemmel, Dave Riley, Don Meadors, and others, AIAEE was born out of this meeting.” His wife, Rose, organized the first Chevy Chase meeting while working at the University of Maryland. “The first reception consisted of a[n] ice chest/cooler that we bought on the way to the national 4-H Center and filled it with wine and beer. We still have that cooler.”

James Christiansen recalls, “It doesn’t seem possible that it has been 24 years since I participated in the meeting held during the Workshop on Programs of Agricultural Education for Africa (USAID and Government of Cameroon) in Yaounde, Cameroon on July 25, 1984 at which the initial structure, constitution, policies, and operating procedures for AIAEE that had been developed several months earlier were worked on, modified, and expanded to be presented to the members at the next meeting of the newly formed Association.”

Wade Miller adds, “Some people thought there was no need for such an organization because there was time on the schedule of AATEA for extension and sometimes international issues. However, a number of people indicated that they did not feel that was enough. They wanted an organization of their own…It is 25 years later: AATEA has changed to AAAE and AIAE has changed to AIAEE. Both organizations are going strong.”

24. **Relevant and Scholarly Research:**
The history of the organization was rooted in the discovery of new knowledge. Letters documented the beginnings of the research conference and its proceedings.

Wade Miller shared that “people brought copies of their papers with them and you could assemble your own set of proceedings if you wanted them.” He went on to say that “research papers were welcome if they had practical value.” Jack Elliot added that “back then conference proceedings were assembled at the conference by the graduate students. All authors were asked to bring 100 copies of their paper. The association would buy us pizza and we would collate all of the proceedings the evening prior to the research portion of the conference.”
Ana Kazan remarked that AIAEE is "relevant, demanding, and one of high academic and network value." Glen Shinn offered that “AIAEE reaches across the field of study to connect scholarship, professional practice, and indigenous knowledge.” Kristin Davis noted the benefits of scholarly outlets that allowed her work to be "highlighted internationally through the journal and conferences."

23. Graduate Student Membership:
Several letters mentioned that members started attending the organizational meetings as a graduate student due to encouragement from faculty such as Barbara Ludwig, Larry Miller, Jan Henderson, John Richardson, Robert Agunga, Frank Brewer and others.

James Lindner mentioned that he “never envisioned that this simple and encouraging invitation would result in a lifelong pursuit, but it has.” Ana Kazan came to the conference right after completing her Master’s degree at The Ohio State University. “My advisor, Dr. Robert Agunga, encouraged me to submit a paper about my thesis, and there I was, in some Washington D.C. suburb hotel.” Kristin Davis commented that “my advisor pressed me to attend, although I was not excited about it. However, once I got there I realized it was a good venue for networking, presenting results of research, obtaining new information, and growing professionally.”

Sabrina Tuttle attended her first AIAEE meeting as a 40 year old grad student. “We all piled into a van for the six hour drive from College Station to Baton Rouge.”

Jack Elliot reflected on his participation in the inaugural meeting when he was a PhD student: “The trip from Columbus, OH to DC was made by van with a group of graduate students and Dr. Henderson. Not sure why she volunteered to be with [us] for all those miles, but sharing a hotel room on the way with 4 other graduate students bonded us for all of eternity.”

David Lawver (president-elect) was another faculty member who was recruited to drive a van of graduate students from Lubbock to the conference in Baton Rouge in 2001 by his department head, Matt Baker.

Adewale Alonge shared, “I can still remember the excitement of getting on the Iowa State bus with other graduate students from Ames and driving to Washington, DC and making my first presentation in front of a large international audience.” Based on these letters, perhaps faculty who drive vans to allow graduate students to attend is the best recruitment strategy!

22. JIAEE: The first journal editor was Jack Elliot.

He elaborated: “Beginning the journal was a labor of love. The original journal white paper team of Satish Verma from LSU, Bill Seiders from University of Illinois and [me] (then at Michigan State University) presented our work at the first AIAEE meeting held west of the Mississippi River in 1991 at St. Louis, MO. Wade Miller from Iowa State and Anne Fox from Oregon State were added to the team to form the first journal editorial board. The first issue of volume one was distributed during the 10th anniversary of the association. Jack Elliot added that “some of the original strategies such as publishing the outstanding research
presentations have been modified as the journal sought to improve its prestige within the journal world.”


Adewale Alonge stated, “The beauty of AIAEE conferences is how we have always managed to get the right balance between work and fun.” It is interesting to review the conference locations and themes over the last 10 years. Just for fun, look through your old files and reminisce…

2000 – Arlington, Virginia - “Partnerships with the Private Sector”
2001 – Baton Rouge, Louisiana - “Emerging Trends in Agricultural and Extension Education”
2006 – Clearwater Beach, Florida – “International Teamwork in Agriculture and Extension Education”
2007 – Polson, Montana – “Internationalizing with Cultural Leadership”
2008 – EARTH University, Costa Rica – “Global Entrepreneurship: The Role of International Agricultural & Extension Education”
2009 – San Juan, Puerto Rico – “Twenty-Five Years of Strengthening International Agricultural and Extension Education Worldwide”

Jack Elliot stated that “hosting the 1998 AIAEE conference in Tucson, AZ allowed the organization the opportunity to have a successful meeting away from the East and Midwest. In fact, it gave the group confidence that it could and would travel with enough numbers outside of the continental US. Even though the first international meeting the following year was in the Caribbean, it changed us forever.” Looking toward the future, it is interesting to note that the next 3 conferences are slated to occur outside of the US.

20. Service: Many of the letters noted the role that service had played in their involvement in the organization. Just from the letters received, members had served in various roles related to the research conference: poster and paper presentation judges, discussants, paper reviewers, scholarship chair, hosting a conference, and conference chair. Additional letters mentioned service to committees such as membership, constitution and bylaws, and resolutions. Those who responded had also served as officers on the executive committee or as journal editors.

Wade Miller added that “individuals who have a service mentality should be attracted to this organization of people for a long time to come.”

19. Welcoming: Authors of the letters that were submitted agreed with

Wade Miller that the organization’s “environment was welcoming, nurturing, and friendly. All
members were on an equal basis and everyone’s ideas were valued.”

Pete Vergot added that spouses also felt welcome at the conference with special thanks to people like Cheryl Vergot who made sure that other spouses actively participated and met new friends.”

Larry Miller reflected that “the early meetings held at the national 4-H Center in Chevy Chase MD were particularly warm, meaningful times for all involved and I fondly recall the long van rides, filled with conversations, in transit.”

David Lawver had “never felt as welcome as I felt when I attended my first conference” and hope that others new to the organization will feel the same way.

18. Rewarding: Various letters mentioned that their involvement in AIAEE had been rewarding.

Bob Martin reflected, “the greatest thrill for me has been in helping graduate students attend and participate in AIAEE.”

Sabrina Tuttle shared that “It was very rewarding to be with a group of folks that had worked so hard all year on various publications and finally we were rewarded at the conference through the wonderful networking, socializing, learning and touring during our time there with AIAEE.” Some of the letters specifically mentioned the importance of receiving awards or recognition for their participation in AIAEE.

As shared by Steve Jones, most of this is attributed to “meeting the many wonderful people who are part of AIAEE who really care about making the world a better place through agricultural development.”

17. Interacting with Colleagues: An organization is only as good as the people who are in it. Thus, the conference was compared to a “high school reunion each year;” a time to “immerse myself in the camaraderie of my fellow students and the so admired professors.”

Wade Miller recalls that “conversations took place late into the night; not just during organized sessions.”

Pete Vergot added that the conference provides an opportunity for “meeting people and making friends from across the world.”

Kristin Davis similarly stated that her “fondest memories are times with friends, interacting professionally as well as socially at interesting places around the globe.”

Larry Miller noted that “AIAEE provided me with a whole new network of colleagues who had values similar to mine. I most value the friendships that were developed over the years, often with persons who first attend as graduate students and later as professors, leaders, deans, etc.”

David Lawver added that “AIAEE involvement has provided the encouragement to get out of my comfort zone. I accompanied a doctoral student to Kenya and Uganda in 2005 to supervise collection of his dissertation data. I don’t know that I would have had the will to do this without the interactions I had with veteran international development colleagues in AIAEE.”
Michael Angstreich summed “…the guidance, friendships and cooperation provided by AIAEE have enhanced my professional life immeasurably.”

16. Collaborative Partnerships: Many members mentioned that various projects resulted from interacting with colleagues around the globe.

James Lindner stated, “working with David Dolly, Wayne Ganpat, and others in Trinidad and Tobago on the adoption and diffusion of farmer field schools and other community farming projects has been incredibly rewarding and would not have been possible without my participation in AIAEE. You never know where a Trini burger and a float down the Llano River will lead you…for me it has been a great trip.”

Wade Miller noted, “this organization became a mechanism to meet other people with similar interests who were also engaged in a number of other related endeavors. This group did not just ‘talk’ about the issues; it was made up of people who ‘acted’ on them.”

Jerry Gibson reflected, “the most poignant international experience has been and still continues to be the collaboration with Shiraz University in Iran. When people and countries are in conflict, agriculture continues to be the most fundamental need of all people.”

15. Interest and Passion for Agricultural International Development: The glue that essentially ties us all together is our shared interests. Bob Martin specifically mentioned that his passion began when he served as a teacher of agriculture and biology in Nigeria, West Africa. “This experience had a profound impact on me and has shaped all my experiences since then. Involvement in projects in Western Europe, Egypt, Thailand, Japan, South Korea, South America, Czech Republic and working with graduate students from numerous countries all combine to make international agriculture development a key element of everything I do.”

Wade Miller suggested that AIAEE “was a ‘think tank’ for international agricultural and extension [education].”

14. Social Good: Many of the letters indicated the importance of “doing good” for society.

Jerry Gibson stated that “The greatest impact that AIAEE has had on me is the one regarding increased knowledge of the world’s people…It is my hope that we as educators can enhance the quality of life for everyone.”

David Lawver shares a story about visiting a village in Uganda. “When we asked about agricultural problems, they focused on the simplest things like ‘we need hoes’ or ‘we need seed’…Just a little help meant so much to these people.”

Larry Miller added that “those attending [the inaugural meeting] were individuals who enjoyed international work in agricultural/extension education, but, perhaps more importantly, those whose values were steeped in the accomplishment of ‘social good’.”

13. Communication:

Pete Vergot surmised that “AIAEE is you and me sharing our Agricultural Education and Extension leadership
and expertise during conferences through papers and posters and carousels and our journal JIAEE. Obviously interacting with colleagues beyond the conference is also important. We use a variety of tools for continued involvement such as the listserv, website, and newsletter.”

Michael Angstreich tells the story about searching for a professional organization on the web and finding AIAEE. “Trouble was, I was having problems getting through to AIAEE via normal channels. I got up my nerve and went right to the top leadership by phoning John Richardson…His warm southern voice allayed my nervousness and started me off as a member of AIAEE.”

12. **Advice to New Members:** Some letters conveyed words of wisdom for those just joining the organization. The primary message was *get involved!* “Take advantage of the leadership opportunities available.” “Share your experiences and what you have learned either through oral or poster presentations or the literature. Your peers need to hear from you.” “Jump in and volunteer. We need your knowledge and your leadership.” “Connect with a ‘tenure’ member and ask if they would serve as a mentor.” “Get involved and take chances. AIAEE offers amply opportunities for all individuals interested in an international experience.” “Submit a paper or poster for the conference, come and meet everyone at the annual conference, and try to publish in the journal.” “I would highlight for new members how many wonderful people are employed in our profession all around the world, how we seem to have common concepts of mission and vision and how they will value each such association and new colleague.”

11. **Fondest Memories:** Letter writers shared their fondest memories.

Dr. Christiansen elaborated, Having been an active member of AIAEE since the early days, I have accumulated many good memories, e.g., meeting and visiting with professionals from many different universities, organization, and regions of the world; reviewers returning promptly manuscripts and papers submitted for presentation at the annual conferences; hard work by the officers and chairs of committees in planning and conducting the annual conferences; observing the eye-opening experiences gained by graduate students attending their first conference in a multi-cultural/cross-cultural setting other than their own, whether in South Africa, Ireland, Costa Rica, or the United States; obtaining perspectives on problems and practices in international development in agriculture…”

James Lindner shared specific events such as “Burt Swanson winging in from somewhere/anywhere to attend the conference,” “floating down the Llano river,” “doing an ecological transect in Junction, Texas and bumping into Jack Pardee [A Texas A&M University Aggie during the Bear Bryant years and former coach of the Dallas Cowboys professional American football team].”

Jerry Gibson also enjoyed the “field trips” such as the boat ride in the swamps of Louisiana and watching the snakes, alligators, and all kinds of wildlife.”

Wade Miller noted the enjoyment of learning about the local language and culture (not on the tourist maps).
“Truly an interesting human experience.”

There are so many wonderful things about AIAEE that it’s hard to sum it all up! However, David Giltrow, a lifetime member since 1991 from Santa Fe, New Mexico, provided “Dave’s Top Ten Reasons to Celebrate and Cheer AIAEE’s 25th Anniversary” (slightly modified by the authors).

10. Food, Food, Food
9. Sesame Street may have a “Burt & Ernie;” AIAEE has a “Burt & Iris”
8. “A Good Job” by volunteers who make all this possible
7. Elephant-sized post conference tours
6. We dance at great cultural events
5. Plenty of publications, papers, and posters in profusion
4. From the humble setting of a 4-H center, AIAEE has gone intercontinental
3. Overcoming burned out overhead projector lamps, Kodak slide projectors, and now, incompatible cables between laptops and video projectors—but still get our results and implication across

2. Pizza-eating graduate students from around the world—providing new energy and fresh blood
1. Anticipation for what the next 25 years will bring.

In closing, Glen Shinn wrote: “As we look to the next 25 year birthday – Twenty Thirty-Four- we should be bold in our vision. Bold enough to embrace diversity, celebrate our knowledge exchange, and advocate promising research and development practice.” This is also the year that we celebrate Neil Armstrong’s first steps on the moon. Let AIAEE go where no man or woman has gone before!

Happy 25th Birthday AIAEE.

Special Thanks: Adewale Alonge, Michael Angstreich, James E. Christiansen, Kristin Davis, Jack Elliot, Jerry Gibson, David Giltrow, Steve Jones, Ana Kazan, David Lawver, James Lindner, Bob Martin, Larry Miller, Wade Miller, Glen Shinn, Sabrina Tuttle, and Pete Vergot III.
A Model for Developing a Well-Prepared Agricultural Workforce in an International Setting

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Abstract

Agriculture is an important sector of the economy of Egypt and other North African and Middle Eastern countries. While a system of Agricultural Technical Schools (ATS) is in place in Upper Egypt, there has not been a comprehensive effort to help ensure that students in those programs are adequately prepared to enter the workforce and be productive. The model that was developed begins with the needs of agricultural business and industry and the perceived preparedness of ATS graduates to enter the workforce. The differences between need and preparedness generate a skill-gap that serves as the basis for curriculum design. Curricular change based on student ability and guided by an external advisory council includes technical skill development, internships, decision-making and leadership. Coupled with curricular improvement, the model allows for faculty development to assist ATS instructors in active learning, competency assessment, leadership activities and internship supervision. A train-the-trainer model utilized agriculture faculty members from Egyptian universities to provide ongoing instruction. Since other nations of the North African and Middle-Eastern regions share similar needs and concerns, the model is proposed to be applicable in those settings as well.

Keywords: model development, secondary schools, Egypt, agricultural education, train-the-trainer
Introduction

As the population of the world continues to increase and the available land for food production decreases, the need for highly successful agricultural production and marketing becomes even more important. For example, since 1952 the Arab Republic of Egypt has been faced with a rapidly expanding population that has placed extraordinary demands on its agricultural resources. Following the 1973 Arab-Israeli war, the government introduced a more open economy that decentralized decision-making and removed government restraints on the private sector. The five-year plan of 1982-87 provided fixed investments in development projects, with 16 percent of the funding going to agriculture. While federal control of heavy industry continued, agriculture was mainly in private hands and mostly deregulated (Nationsencyclopedia, 2009).

Agriculture remains an important sector of the North African and Middle East economies. With three percent or less of the total area of the country classified as arable land (although highly fertile) in countries such as Egypt, Saudi Arabia, Algeria and Jordan, agriculture contributes up to one-sixth of the Gross Domestic Product (GDP) in Egypt and Morocco, employs a tenth to one-third of the labor force, and provides the countries with an important part of foreign exchange (Nationsencyclopedia, 2009). Morocco is essentially self-sufficient in food production, while others are dependent upon food imports. In addition, the food processing industry contributes heavily to the GDP (Britannica.com, 2008; fita.org, 2008).

In order to feed growing populations, agriculture in many areas is geared more toward commercial rather than subsistence production, creating a need for a labor force that can contribute to the large-scale production enterprises as well as maintain small family-oriented farms (fita.org, 2008). With two or three growing seasons per year in climates near the equator, agriculture can be highly productive in field crops and specialty crops as well as livestock production (Britannica.com, 2008). As agriculture continues to intensify, the need for well-prepared agricultural workers and managers in production as well as agribusiness continues to grow (Samy, 2003).

In 2003, the U. S. Agency for International Development (USAID) funded a development project through an Institutional Linkage Cooperative Agreement with the Midwest Universities Consortium for International Activities (MUCIA) entitled Agricultural Export for Rural Income (AERI). The project included three major components: capacity building, public-private partnership development, and biotechnology (Samy, 2003). The Capacity Building Component was designed around three objectives: develop competency-based curricula in participating universities that better match agricultural sector workforce needs; develop new and updated courses in horticulture, animal production, and agribusiness management, and improve instruction; and develop internship programs to provide real-life experiences working with farmers, exporters and other agribusiness firms for college graduates (Samy, 2003).

As part of the linkage project, a highly successful and innovative program brought dynamic changes in the teaching and curricula in the Agricultural Technical Secondary Schools in Upper Egypt. In 2007, a new project was funded by USAID through MUCIA to expand the effort (Samy, n.d.).
The new project, *Value-Chain Training for the Agricultural Technical School Program in Upper Egypt*, included the following components:

- Conduct a skill-gap analysis;
- Transform the curricula;
- Update technical course content;
- Improve teaching methods;
- Develop supplemental instructional materials;
- Provide a train-the-trainer approach;
- Improve experiential learning;
- Conduct overseas study tours for headmasters and outstanding instructors; and
- Promote student involvement and growth.

The end goal of the new project was to improve the employability of ATS graduates by better meeting the skill requirements of the agricultural industry in Egypt. The target population included approximately 8,000 ATS instructors in the 50 agricultural schools in Upper Egypt, which serve approximately 100,000 students (Samy, n.d.). The project serves as a model for adaption and expansion into other areas of the region, including Algeria, Morocco, the Sinai Peninsula and Lebanon (M.M. Samy, personal communication, July 2009).

**Purpose**

The success of such a major undertaking relies upon the understanding and cooperation of a number of key players. For this project, those key groups include USAID, MUCIA, Egyptian university faculty and administrators, ATS instructors and headmasters, external advisory committees, U.S. faculty, Egyptian business and industry, and the Ministries of Education and Higher Education of Egypt. To facilitate that understanding and cooperation, a model was developed to show schematically how the groups that are central to the project participate in developing and carrying out the various components for the Egyptian situation. The model shows that change in the agricultural workforce begins with private industry. The private sector is represented by successful farmers and agribusinessmen through advisory councils. They are important to the success of the adoption of the model and the infusion of new technical content into the curricula. After change is made in terms of content and process, the new members of the agricultural workforce provide feedback to the agricultural industry in terms of the success of the program and the implementation of the model.

**Theoretical Theme – The Model**

The model for value-chain training programs in the agricultural technical schools of Egypt (Figure 1) includes three areas: Assessment, Content and Process. Each of these areas is described in the follow sections.
Assessment

Agricultural industry needs. The first step in developing curricula that are responsive to industry needs is to survey key industry leaders regarding their perceptions of skills needed by ATS graduates. Lists of potential skill competencies were developed which centered on the major agricultural enterprises in Egypt and the programmatic areas of the schools. The external advisory committee for the project assisted in developing the skill lists. In addition, each ATS established an external advisory council to provide local input and direction for the programs.

Graduate preparedness. Coinciding with determining industry needs, graduates of the ATS programs were surveyed to determine their self-perceived preparedness in being able to perform each of the skills within the programmatic area of their ATS experience. The lists of skills were developed by the project team in consultation with industry leaders.

Skill-gap analysis. To assist in identifying needed changes in the curricula, a comparison of industry needs and graduates’ preparedness was made. ATS graduates completed a survey instrument that asked them to rate their preparedness in being able to perform skills related to their ATS instructional program. Agribusiness industry representatives were asked to rate...
the importance of the skills and competencies in their specific agricultural business. Skill competencies where industry needs scores were higher than graduate preparedness scores (the skill-gap) were identified as key in curricular revision for the ATS programs.

Content

The curricula for the secondary school programs are typically monitored closely by the Ministry of Education. Essentially there is a state-mandated curriculum for all programs in the schools. Therefore, significant change must be made within the parameters of the state curricula. Three components of the curricula were identified for enhancement, namely agricultural technical skills, decision-making skills, and leadership skills. The concept of establishing internships for students, beyond the typical summer experience at the school site, was introduced, and industry involvement was included through the establishment of local advisory councils.

Agricultural technical skills. Skills to be developed and enhanced in the major agricultural program areas in the ATSs were identified through the skill-gap analysis. Instructors prepared or revised courses to reflect the changes needed by industry while also satisfying state requirements. Curriculum materials, including visuals, were identified and translated into Arabic for use by the ATS instructors.

Decision-making/problem-solving skills. During the identification of technical skills and competencies, several non-technical competencies were identified that were not particular to a programmatic area. These skills are generally recognized as being able to make decisions and solve problems. Although they are not specifically taught, the goal of the model is to create ways that decision-making skills are developed within the agricultural program curricula.

Leadership and personal skills. Similar to decision-making and problem-solving, the state-approved curricula in Egypt do not provide an opportunity to teach leadership development skills. Youth organizations similar to those in the U.S. are not a part of the ATS programs. Again, the goal of the model is to create ways for students to develop and enhance these personal skills of leadership within the context of learning agriculture.

Internships. Historically, the ATSs have provided summer field experiences for at least some students on the school farms. This approach has been helpful for students to develop practical skills, but the school situation does not mirror real-life farms and agribusinesses. The addition of internships away from the school should complement the other parts of the curricula.

External advisory input. From the beginning, agricultural industry leaders have played an important role in guiding the project. The local schools, however, did not have external advisory committees in place. The model provides the opportunity for local agricultural leaders to assist in making needed changes in the ATS programs and can also add value to a continued effort of identifying industry needs for the agricultural workforce.

These five content components of the model should result in an up-to-date curriculum for each ATS program area. The next part of the model addresses the process for creating change.

Process

As noted above, the first USAID and MUCIA project focused on university curricula development and teaching enhancement. For the ATS continuation, faculty from the universities partnered with U.S. faculty in conducting workshops for ATS instructors. The expertise of the Egyptian faculty and their knowledge of teaching and curriculum from earlier workshops complemented the expertise of the U.S teaching team (Roberts, Thoron, Barrick & Samy, 2008). Further, the Egyptian faculty members conduct
workshops for additional ATS instructors after the teaching team returns to the United States. Four process components are included in the teacher development part of the model.

**Active learning strategies.** Typical instruction in the universities and secondary schools has been through teacher-centered delivery strategies. The model incorporates the development of active learning strategies for the ATS classrooms. Instruction is provided to the ATS instructors through content-specific workshops that demonstrate a variety of active teaching and learning techniques. Examples of active learning strategies and techniques were shared and demonstrated during the workshops.

**Agricultural technical content.** Egyptian university faculty are utilized to teach the agricultural content, since crops and growing methods can differ considerably from practices in the western hemisphere. ATS instructors are encouraged to revise courses and lesson plans to utilize well-written behavioral objectives to improve teaching and to appropriately assess student competency development. Course syllabi were written and revised by the instructors under the leadership and guidance of Egyptian and U.S university faculty.

**Internship development.** ATS instructors have not been familiar with the concept of supervised experience programs for their students (Thoron, Barrick, Roberts & Samy, 2008). Workshops have been held to assist instructors in developing suitable internship experiences, from planning and conducting to involving agribusinesses and families in carrying out successful internships. An assessment of workshops that address experiential learning revealed that ATS instructors did not have experience in or knowledge of working with students, families and local agricultural businesses and farmers in preparing for and conducting internships (Thoron et al, 2008).

**Leadership competition events.** The state curriculum guidelines do not provide for instruction in leadership and personal development skills like in the U.S., and there is no student organization that can be utilized as a means to apply those skills. Therefore, skills such as oral expression, team building and goal setting are taught within the context of agriculture, with the focus on technical skill development while using leadership skills as a strategy to teach agricultural content. This area remains under development as a part of instructional workshops for ATS instructors.

**Application of the Model**

The value-chain training program in the agricultural technical schools of Egypt is a revolutionary concept for Egyptian education. From identifying the real needs of the industry to advancing curricula and teaching strategies, the instructors in the Agricultural Technical Schools have participated in a series of workshops taught by Egyptian and U.S. university faculty. The initial programmatic areas that were addressed in the USAID MUCIA projects were horticulture, animal science and agribusiness management. More recently, the model has been utilized for conducting programs for ATS instructors in agricultural mechanization and food science and food safety. Early in the project, a separate series of workshops was conducted to address experiential learning and internships. Following the model, that concept area is now included in all workshops for the instructors. The last segment of the model to be addressed is leadership development. The plan is to assist instructors in incorporating these skill areas into the agricultural curricula without having to create a youth development organization as in the U.S. Since the train-the-trainer approach is utilized, the value-chain training program can continue to expand without the presence of the U.S. team and hopefully beyond the end of the USAID funding. While the model may seem commonplace in North America (Hughes & Barrick, 1993), the concept is very new for the Egyptian school culture,
and the model will serve as a basis for program development in other African and Middle-Eastern countries as funding is expanded.

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Challenges in Public Agricultural Extension of Korea

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Abstract
Based upon the conceptual framework of the paradigm shift in agricultural extension of Korea, this research presents the challenges of the subjects, functions, methods, and resources of Korean agricultural extension. The presented challenges are estimating a greater variety of customers’ needs, strengthening the link between the agricultural extension and agricultural research and development, weakening the link between the agricultural extension and agricultural administration, making Korean agricultural extension be mainly for farmers and consumers, and having Korean agricultural officers change their capability and awareness so that they cope with the challenges of the new agricultural extension. To manage these challenges more effectively, this research also presented that the structure and the culture of an agricultural extension organization and the status of agricultural extension officers should be changed.

Keywords: Korea, agricultural extension, challenges
Introduction and Conceptual Framework

The Korean agricultural industry has continuously played a very important role as a national infrastructure industry, ranging from the Green Revolution of the 1970s to the White Revolution of the 1980s. However, the Korean agricultural sector is facing perhaps one of its most formidable crises due to the rapid environmental changes such as the recent signing of the Korea-US FTA. Although there are many reasons as to why the Korean agricultural sector is experiencing a crisis, the root cause lies in the Korean agricultural sector’s lack of a competitive edge. Here, the competitive edge of the agricultural sector refers to the lack of farmers’ and technological competitiveness.

According to the basic agricultural statistics by Korea National Statistical Office(2008), the rate of farm households in Korea has steadily decreased since 1960, which was 53.7%(2,350,000) of total households of nation. In 2007, the rate of farm households decreased drastically to 7.5% (1,231,000). This has resulted in a drastic decrease in the rural population from 58.3% (14,559,000) in 1960 to 6.8%(3,304,000) in 2007 (Table 1).

Table 1

Farm Households and Farmers in Korea by Years

<table>
<thead>
<tr>
<th>Years</th>
<th>Farm households</th>
<th>Farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n(^a)</td>
<td>Rate(^b) to total households of nation</td>
</tr>
<tr>
<td>1960</td>
<td>2,350</td>
<td>53.7</td>
</tr>
<tr>
<td>1970</td>
<td>2,483</td>
<td>42.4</td>
</tr>
<tr>
<td>1980</td>
<td>2,155</td>
<td>27.0</td>
</tr>
<tr>
<td>1990</td>
<td>1,767</td>
<td>15.6</td>
</tr>
<tr>
<td>2000</td>
<td>1,383</td>
<td>9.6</td>
</tr>
<tr>
<td>2007</td>
<td>1,231</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Note. \(^a\)Unit: 1,000 households; \(^b\)Unit: %

Farming in Korea is changing from rice-centered farming to livestock, fruit, and vegetable farming. Korea National Statistical Office(2008) investigated the farm households of farming area in Korea, and as shown in Table 2, the number of farm households of rice farming in water decreased from 76.8%(1,790,000) in 1960 to 49.6%(610,000) in 2007. For fruit, it increased significantly from 0.4%(9,000) in 1960 to 11.7%(144,000) in 2007 and also vegetable farming increased significantly from 1.0%(24,000) in 1960 to 21.5%(265,000) in 2007. Meanwhile, for cash crops and flowering plant, there are slight increases while dry-field farming is decreasing slightly.
Table 2

Farm Households of Farming Areas in Korea by Years

<table>
<thead>
<tr>
<th>Years</th>
<th>Rice nᵃ Rateᵇ</th>
<th>Fruit nᵃ Rateᵇ</th>
<th>Cash crops nᵃ Rateᵇ</th>
<th>Vegetable nᵃ Rateᵇ</th>
<th>Flower nᵃ Rateᵇ</th>
<th>Dry-field nᵃ Rateᵇ</th>
<th>Total nᵃ Rateᵇ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>1,790 76.8</td>
<td>9 0.4</td>
<td>16 0.7</td>
<td>24 1.0</td>
<td>-</td>
<td>-</td>
<td>436 18.7</td>
</tr>
<tr>
<td>1970</td>
<td>1,115 44.9</td>
<td>46 1.8</td>
<td>145 5.8</td>
<td>252 10.1</td>
<td>-</td>
<td>-</td>
<td>320 12.9</td>
</tr>
<tr>
<td>1980</td>
<td>not investigated</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2,155</td>
<td>100.0</td>
</tr>
<tr>
<td>1990</td>
<td>1,232 69.7</td>
<td>107 6.1</td>
<td>39 2.2</td>
<td>172 9.8</td>
<td>6 0.4</td>
<td>114 6.5</td>
<td>1,767 100.0</td>
</tr>
<tr>
<td>2000</td>
<td>787 56.9</td>
<td>143 10.4</td>
<td>38 2.7</td>
<td>238 17.2</td>
<td>8 0.6</td>
<td>92 6.6</td>
<td>1,383 100.0</td>
</tr>
<tr>
<td>2007</td>
<td>610 49.6</td>
<td>144 11.7</td>
<td>37 3.0</td>
<td>265 21.5</td>
<td>11 0.9</td>
<td>-</td>
<td>1,231 100.0</td>
</tr>
</tbody>
</table>

Note. ᵃUnit: 1,000 households; ᵇUnit: %

According to the basic agricultural statistics for the rural population by age groups in Korea (Korea National Statistical Office, 2007), those under 14 years old decreased from 43.5%(6,271,000) in 1970 to 9.5%(314,000) in 2006, and the rural population of people between the ages of 15 to 19 (these determine the size of the labor force in the agricultural sector) decreased from 10.4%(1,497,000) in 1970 to 4.4%(144,000) in 2006. Moreover, adults between the ages of 20 to 49, who play the central role in the vitalization of the economy in rural communities, decreased from 30.5%(4,404,000) in 1970 to 27.1%(896,000) in 2006. What is unique is that the rural population of senior citizens (at least 60 years old) increased significantly from 7.9%(1,143,000) in 1970 to 40.8%(1,346,000) in 2006 while those under the age of 49 decreased drastically from 84.4%(12,172,000) in 1970 to 41%(1,354,000) in 2006 (Table 3).

Table 3

Rural Populations of Age Groups in Korea by Years

<table>
<thead>
<tr>
<th>Years</th>
<th>under 14 nᵃ Rateᵇ</th>
<th>15 ~ 19 nᵃ Rateᵇ</th>
<th>20 ~ 49 nᵃ Rateᵇ</th>
<th>50 ~ 59 nᵃ Rateᵇ</th>
<th>over 60 nᵃ Rateᵇ</th>
<th>Total nᵃ Rateᵇ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>6,271 43.5</td>
<td>1,497 10.4</td>
<td>4,404 30.5</td>
<td>1,107 7.7</td>
<td>1,143 7.9</td>
<td>14,422 100.0</td>
</tr>
<tr>
<td>1980</td>
<td>3,230 29.8</td>
<td>1,684 15.6</td>
<td>3,701 34.2</td>
<td>1,074 9.9</td>
<td>1,138 10.5</td>
<td>10,827 100.0</td>
</tr>
<tr>
<td>1990</td>
<td>1,370 20.6</td>
<td>734 11.0</td>
<td>2,259 33.9</td>
<td>1,111 16.7</td>
<td>1,187 17.8</td>
<td>6,661 100.0</td>
</tr>
<tr>
<td>2000</td>
<td>459 11.4</td>
<td>262 6.5</td>
<td>1,302 32.3</td>
<td>676 16.7</td>
<td>1,333 33.1</td>
<td>4,032 100.0</td>
</tr>
<tr>
<td>2006</td>
<td>314 9.5</td>
<td>144 4.4</td>
<td>896 27.1</td>
<td>601 18.2</td>
<td>1,346 40.8</td>
<td>3,304 100.0</td>
</tr>
</tbody>
</table>

Note. ᵃUnit: 1,000 households; ᵇUnit: %

The agricultural extension system plays a very important role in strengthening the competitiveness of the agricultural sector. It is an excellent medium for strengthening both the competitive edge of the farmers and technology. In the case of Korea, the agricultural extension can be found in the Agricultural Promotion Law (2003), which defines what is needed for the implementation of agricultural research initiatives, the agricultural extension, and the education and training initiatives for farmers. It promotes agricultural science and technology to ensure the advancement of agriculture, which is a base industry of a nation, and to ensure the farmers’ improved well-being. Here, agricultural extension refers to the
cultivation of farmers’ organizations that aim to increase agricultural productivity and to improve the everyday life of farmers, the cultivation of rural youths and the successors of the agricultural business, the distribution of technology developed from the agricultural research initiatives, the development of regional agriculture, the development and the distribution of technology that will help farmers handle obstacles in the field, and guidance to improve produce quality and position.

Traditionally, Korea’s agricultural extension has been based on the model of agricultural technology distribution (Van den Ban & Hawkins, 1988). This model shows the relationships among agricultural research, agricultural extension, and farmers. According to this model, agricultural extension process scientific knowledge the results of agricultural research to the techniques and transmits the techniques to the farmers to help them adopt them and increase production by using them. Agricultural extension also takes the farmers’ problems and then gives the issues introduced by the problems to agricultural research.

Referring to the state of Korean agriculture and the concepts of Korean agricultural extension, this research presents the challenges of subjects, functions, methods, and resources of agricultural extension according to the conceptual framework of the Korean agricultural extension designed by rural development administration (2005). The findings of this research will serve as important data for identifying the value of the Korean agricultural extension and for searching for improvement measures.

**Purpose and Objectives**

This research intends to help those who seek to understand the agricultural extension in Korea and find out measures to develop the agricultural industry by finding out the achievements resulting from the advanced agricultural extension as well as by suggesting the challenges facing it. The following are the concrete objectives of this research:

1. To check the development process of Korean agricultural extension according to legal and institutional changes.
2. To find out the achievements of Korean agricultural extension.
3. To suggest the challenges facing Korean agricultural extension in terms of an object, function, method and resource.

**Methods**

This research used a qualitative methodology in addressing the objectives. The qualitative elements of the research included literature reviews conducted with journals, theses, organizational reports, and statistics on agricultural extension and Korean agricultural extension according to the conceptual framework.

Data were collected multilaterally based on Ellis (1991). At first, journals and theses issued at 2000’s if possible were searched and collected by using keywords such as “extension”, “agricultural extension”, and “agricultural extension challenges” through Korea Education and Research Information Service (http://www.riss4u.net/), Korean Studies Information Service System (http://search.koreanstudies.net/), NURI Media (http://www.dbpia.co.kr/) and EBSCO (http://web.ebscohost.com/). Secondly, journals, organizational reports and statistics not collected at first level and issued at Association for International Agricultural and Extension Education, The Journal of Agricultural Education and Extension, Journal of Extension, Korea Rural Economic Institute, and Statistics Korea were collected. Lastly, journals and theses related with research objectives among journals and theses referred in collected data at first and second level were collected. Exploratory analysis was used to
review, summarize and analyze the data according to the conceptual framework.

Findings

Development of the Korean Agricultural Extension

The legal status of Korean agricultural extension was guaranteed initially under the Agricultural Instruction Act promulgated on February 12, 1957. After the Agricultural Community Development Promotion Act was revised in 1962, the agricultural extension has contributed to Korean modernization and economic development as well as the development of the agricultural industry and the rural community. But the Agricultural Community Development Promotion Act was revised to enhance local autonomy. Under the revised Act, a local agricultural promotion agency came to belong directly to local governments in 1995, and the status of public officials in charge of research and instruction, who belong to a local agricultural promotion agency, was changed from the state public officials to local public officials. As a result, a local agricultural instruction agency’s right to implement personnel management, financial discretion, and right of inspection was handed over to the head of local government.

The agricultural extension organization has been repeatedly integrated with or separated from other organizations in the process of legal and institutional transformation of Korean agricultural extension, but the program has played an independent role, and the relevant system has guaranteed the status of public officials in charge of agricultural extension.

Achievements of the Korean Agricultural Extension

Until 1990, Korea had an integrated agricultural research and agricultural extension, i.e., the Rural Development Administration (RDA), to execute national agricultural extensions, which are considered by the world a successful linkage system between research and extension (FAO, 1982, 1985; as cited in Song et al., 1999: 62). This evaluation came about because the agricultural extension played a major role in realizing the Green Revolution of the 1970s and the White Revolution of the 1980s.

After 1997, the agricultural extension in Korea faced significant difficulties as the status of public servants changed to a local government position from a central government position (almost all became local government employees in 1997). Despite this situation, diverse initiatives were conducted and many achievements came about.

First, technology development and extension activities such as the expansion of technology for the production of high-end rice and support for the technology to cultivate brands in each of the regions were actively pursued. Second, 4-H cultivation, parties providing leadership for rural groups, cultivation of farmers’ research groups for each produce type and other diverse farmers’ organizations were cultivated and operated to develop agricultural leaders and to advance the rural communities. Third, amenity resources such as traditional town businesses were leveraged to actively vitalize the rural communities. Fourth, 82,400 farms (Rural Development Administration, 2005) benefited from farm management consulting services by the agricultural extension organizations in 2003. Of the 747 farmers who had received consulting services, 91.4% answered that the consulting was helpful for technology management, which shows that consulting was very helpful for the actual farm management. Fifth, field-centered education for farmers was leveraged to consolidate education and training initiatives.

Challenges in the Korean Agricultural Extension

What changes are needed for the Korean agricultural extension and what
challenges are required to enable such changes is the topic of this section.

**Direction of changes for the Korean agricultural extension**

It is necessary to contemplate whether there is a need to change the structure of the Korean agricultural extension itself. In response, there is no need to change the greater framework even after improvements are made to the extension because of the following reasons. One, the agricultural extension’s vision is appropriate. When examining the agricultural extension’s vision which is suggested in the Rural Development Administration (2005) data, it is possible to see that it is specified as an “increase in the farms’ income and continual advancement of agriculture and the farming communities as genuine living space with the structured transferring of agricultural technology and information” and “rural community development and cultivation of farmers’ capability to realize the well-being of the farming communities.” The business domains that the agricultural extension must handle to realize this ideal are defined as “structured transferring of agricultural technology and information,” “rural community development,” and “cultivation of farmers’ capability which are appropriate given the present situation.” Another reason is that the present concept, target, function, method, and resources of the agricultural extension are defined appropriately to suit the knowledge based on society’s paradigm.

However, the problem is that after the extension public officials’ status changed to local government positions in 1997, the dwindling of the rural extension function took place rapidly due to the integration and disintegration of the agricultural administration despite the fact that the greater framework of the agricultural extension changed toward the recommended direction mentioned above. Likewise, these changes are not shared correctly with the extension institutions of each region. Moreover, as the set of conditions that make it difficult for the extension public officials to engage in the extension work, agricultural extension declined significantly, which means that the realization of the agricultural extension’s vision is unlikely.

Thus, the direction for the improvement of the agricultural extension going forward needs to focus on drawing out the appropriate strategic initiatives amidst the set greater framework and to operate them effectively so that actual performance can be produced. Towards this end, it is necessary to examine how strategic initiatives for the agricultural extension need to be drawn out, what the contents should be, and what changes are needed for the agricultural extension organizations' structure, for the agricultural extensions' method and system, for the members who are in charge of agricultural extensions, and for the agricultural extension organizations' culture.

**Challenges in Korean agricultural extension with the direction of changes aligned**

There are two ways to cope with the changes taking place in the agricultural environment. The first strategy is a reactive strategy which involves adapting to the changes in the agricultural environment that have already taken place. The second strategy is a proactive strategy that entails leading the changes in the agricultural environment that are to take place in a direction which is favorable for us. In other words, this is setting up the direction that we want in advance and creating an agricultural environment and conditions towards that direction. From these perspectives, the Korean agricultural extension should engage in the reactive strategy in the short run, but it needs to lead farmers and consumers in the long run by leveraging a proactive strategy.

Meanwhile, detailed initiatives are needed to realize the strategy. Strategic initiatives in the agricultural extension refer to the important tasks that are directly related to realizing the agricultural
extension’s vision and mission. Recommended strategic initiatives should be able to answer the following questions.

First, how directly can the strategic initiatives influence the agricultural extension’s ultimate objectives, which are an increase in farmers’ income and quality of life, and the development of welfare rural communities? This should not aim at changing farmers’ knowledge, technology, and attitude alone. Instead, the objective should include yielding actual performance in actual farming and everyday life.

Second, do the strategic initiatives factor in the needs of the farmers and consumers, who are the beneficiaries of the agricultural extension? What the farmers want may change depending on the product categories that the farmers handle, the level of agricultural technology possessed by farmers, the characteristics of the areas that the farmers live in, and other diverse factors. Therefore, it is necessary to set strategic initiatives after reviewing the factors in a comprehensive manner. Marketing and product development (commercialization) that are in line with consumers’ demands are important to the Korean agricultural sector. Thus, extension of these functions must be included in the Korean agricultural extension in order to satisfy both an increase in farmers’ income and consumers’ satisfaction.

Third, how directly should the strategic initiatives be linked in order to realize agricultural policies at the national and regional levels? Because the agricultural extension is one of many functions needed to develop agricultural policies, and thus it is necessary to examine the linkage with other policies if the extension will be helpful for the realization of agricultural policies is to be developed. Strategic initiatives of agricultural extension need to be selected with this goal in mind.

The challenges enabled to answer these questions are presented as the aspects of subjects, functions, methods, and resources of the Korean agricultural extension.

Challenges in the subjects of Korean Agricultural Extension

The agricultural extension needs to transform itself in consideration of the needs of diverse customers including consumers, instead of only focusing on farmers. It is needed to check the contents on which the agricultural extension should focus on in the future by predicting diverse customer needs in Table 4 (Song, Shim, Jung, & Ji, 2003, p. 103).
Table 4

Demand Forecasting to Korean Agricultural Extension of Customers

<table>
<thead>
<tr>
<th>Customers</th>
<th>Demand forecasting</th>
</tr>
</thead>
</table>
| Farmer              | • differentiated technology dissemination by farming type such as full time or part time farming  
|                     | • breeding and cost cutting production technology for high-quality and environmentally-friendly agricultural products  
|                     | • management after reaping and processing technique for increasing value  
|                     | • development of highly added value production technology which uses the Bio-Technology  
|                     | • agricultural product export and precision agricultural technology and mechanized agriculture  
|                     | • applying agricultural technology, management consulting and information technology  
|                     | • extraction and industrial use of multi-functionality in agriculture  
|                     | • advisory service for Women and old farmers                                           |
| Consumer            | • increasing preference to food safety  
|                     | • campaign and information on food security  
|                     | • increasing attention for environmentally-friendly agricultural products  
|                     | • information on utilization of agricultural products  
|                     | • general information service on agriculture and rural community                       |
| R&D test center     | • feedback systems on the points at issue in farming area to R&D Centers               |
| Agricultural        | • technology aided for agricultural policies at national levels                        |
| administration      |                                                                                      |
| North Korean        | • farmer education and public relation for farmers on agricultural policies           |
| agriculture and     | • agricultural supporting for National Unification                                     |
| overseas            | • international information gathering, technical transfer and cooperation with the underdeveloped or developing countries |

Changes in function of Korean Agricultural Extension

According to the survey conducted by the Rural Development Administration from August to November 2005 in which fifteen farmer organizations and 1,665 government officials of institutions that promote rural communities participated, functions of the city and county Agricultural Technology Center declined after the change to the extension government officials’ status in 1997. Moreover, the survey showed that the city and county Agricultural Technology Center’s current activities do not meet farmers’ expectations. This shows that even when the Agricultural Technology Center is operated by integrating with the agricultural administration due to the nature of the organization structure, agricultural extension fails to lay its inherent role due to the lack of awareness by mayors and county magistrates.

First, it is needed to separate the agricultural extension function of the city and county Agricultural Technology Center that is currently integrated with the agricultural administration to make it an independent function.

According to the internal data of the Rural Development Administration (2007), 69 centers at the cities and counties (27%) among the 159 centers are integrated with the agricultural administration or face their work transferred over to the city and county offices, which in turn translates into the contraction or dwindling of agricultural
extension functions. Thus, this is a factor that prevents correctly carrying out the agricultural extension.

Taiwan, Germany and others have been examined: the type and form of agricultural extension are different from each other, but institutions for agricultural extension at the frontline (cities and counties) are operated by separating them from the administration in order to guarantee the agricultural extension’s educational and democratic specialties by clearly distinguishing among agricultural administration functions such as instruction, regulation, and control (Lee and Lee, 2000).

Second, it is necessary to form a greater linkage between agricultural extension and agricultural research. Advanced nations’ agricultural extension operates organizations by factoring in the effective link between agricultural extension and agricultural research to emphasize the linkage of the research and extension even more to accelerate farmers’ application by distributing the results of research fast.

In the meantime, the structure and the culture of agricultural extension organizations and the status of agricultural extension officials also should be changed. To the structural change of agricultural extension, Rivera (1996) proposed decentralization by structural and managerial reform. Decentralization is defined as the transfer of effective control by central agencies to their field level offices. After the localization of the Korean agricultural extension in 1997, it was necessary to consider designing the organization structure strategically by factoring in the regional characteristics by the share of the farming areas by region, and by the share of the product categories.

Towards this end, it is necessary to review the potential of developing measures for the greater organizations when it comes to the agricultural extension organization, design agricultural extension organizations in the regions centered on the key products, and various alternatives.

Organizational culture refers to the comprehensive concept that includes values, conviction, principles, customs, rules, and traditions that the members of the organization share, and it is considered the basic element that influences the behaviors of the organization members and the organization itself. Currently, the organizational culture of the institutions that offer agricultural extension is very unstable due to the repetitive integration and disintegration of the centers in the cities and counties. Thus, the morale of the members is at rock bottom. In addition, because the extension personnel enjoy less power than those of the agricultural administration, they feel a sense of loss, and have lost the motivation to focus on their roles. Generally speaking, the situation of the agricultural extension in terms of organizational culture is not good. If the Korean agricultural extension is to advance, institutions that offer agricultural extension need to self-reflect and make efforts to make an organization that people want to work for.

Organizational culture plays a very important role in performance. Thus, there is a need to discuss the ideal organizational culture at the institutions that offer agricultural extension along with the members and the innovation of this culture should be made by all levels. To back up the efforts in a realistic manner, the government has to make an effort to help the institutions build their image and help the extension government officials recuperate their will.

To ensure that the extension government officials provide stable and specialized agricultural extension without getting influenced by various external factors, it is necessary to change their status back to the national level status or at least change their status so that they belong to the provinces because it is possible to carry out stable agricultural extension when the current functions of the Agricultural Technology Center consolidate their position as the national function, and
because only then it will be helpful to our agriculture and farmers.

The heads of the autonomous regional entities who are elected by vote tend to focus on the industries that are more favorable or where there is a greater number of workers in order to win votes or to ensure advancement of their respective regions. This phenomenon implies that there is a greater possibility that the number of government officials in the agricultural field may decrease compared to other areas. Because people who provide agricultural extensions tend to have less power than those from other industries and those in the agricultural administration or agricultural research positions, they are always targeted for restructuring.

Second, if and when their status is that of regional employee amidst this situation in which specialization of the agricultural extension is more important than ever in order to strengthen our agriculture's and farmers' competitiveness, human resource interaction will be limited and the extension government officials' development of their specialty will be limited as well. This will impede the advancement of the agricultural sector. Going a step further, the difference between the levels of the centers at the cities and counties will be aggravated depending on the will of the heads of the autonomous regional entities. This will certainly cause many problems when it comes to the advancement of the nation’s agricultural sector and farmers’ competency development.

Third, agriculture and the rural communities do not merely produce food. Instead, given that Korea’s degree of food self support is 36%, this percentage is sufficient motivation to turn agriculture into a national function, which is in line with the farmers’ demands as well. In advanced nations, agricultural extension is classified as a function of the nation, and operation takes place under the close system of cooperation among the local governments and farmers’ organizations. Thus, switching back to the national government position is viable.

Changes in the Methods of Korean Agricultural Extension

It is necessary to cast away the supplier-centered mindset of the past, and to convert to the extension's customer-centered mindset, and to factor in this change in the mindset to the actual extension's method and system. In other words, it is necessary to adopt and to strengthen the extension's method that is close to the farmers and consumers.

First, it is necessary to expand and strengthen agricultural technology, management consulting, and cyber consultation. The ultimate performance of the agricultural extension should not stop at providing technology and information needed by the farmers. Instead, it should be measured by the increase in the actual productivity and income resulting from the farmers’ use of the provided technology and information. To do this, extension government officials should play the role of consultant to create performance instead of simply acting as a technology or information provider. It is necessary to increase consultation via cyberspace to help the farmers who have limited access to information off-line.

Second, it is necessary to cast away individual farm-centered agricultural extension methods to strengthen and expand organization-centered agricultural extension. Ranging from the analysis on the consumers’ needs for agricultural products to the production, processing, distribution, marketing, and product development (commercialization), individuals’ efforts alone won’t be sufficient to ensure the efficient and effective processing in all processes. Thus, organizing to leverage the group extension method is highly resourceful. Moreover, when effective organizing takes place, it is necessary to provide the learning opportunities for the
organizations so that they can study on their own in order to foster their independence.

Third, it is necessary to introduce a method in which customers are encouraged to participate when it comes to the evaluation of the agricultural extension’s output and the method with which the needs of the agricultural extension’s customers can be identified fast and accurately. The first prerequisite of the consumer-centered agricultural extension is to identify customer needs in order to factor the findings into farming. The second prerequisite is to enable the customers to evaluate the performance of the agricultural extension to establish a consumer-centered agricultural extension. Accordingly, analysis of the need for and evaluation of the agricultural extension must guarantee the participation of the farmers and consumers.

Changes in the resources of the Korean Agricultural Extension

The role and the capabilities of agricultural extension officials will control the success or failure of agricultural extension. The success of agricultural extension is deeply influenced by the capability and efforts of the extension government officials. Therefore, there is a need to change the capability and awareness of the extension government officials so that they suit the agricultural extension.

First, it is necessary to define the roles of the agricultural extension government officials so that they can stay in line with the new paradigm, and to support them so that they can develop the set of skills that they need to play their roles effectively. Based on Ulrich’s (1997) model of human resources for constructing a competitive organization, Kim (2003, p. 70) integrated the specific roles by extension targets derived from job areas of Korean agricultural extension to the comprehensive roles (Table 5).

Table 5

<table>
<thead>
<tr>
<th>Job areas</th>
<th>Extension targets</th>
<th>Specific roles</th>
<th>Comprehensive roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic agricultural extension management</td>
<td>• Farmers</td>
<td>• Performance professional</td>
<td>Strategic consultant</td>
</tr>
<tr>
<td></td>
<td>• Agricultural research and administration</td>
<td>• Technical contents professional</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 4-H</td>
<td>• Coordinator</td>
<td></td>
</tr>
<tr>
<td>Change competency management of individual/organization</td>
<td>• Farming successors by the items</td>
<td>• Learning program developer</td>
<td>Human/Community resource developer</td>
</tr>
<tr>
<td>Efficient agricultural extension system</td>
<td>All the beneficiaries of extension (Farmers/Consumers/Agricultural research/Administration etc.)</td>
<td>• Business system analyzer</td>
<td>Administrative expert</td>
</tr>
<tr>
<td></td>
<td>• Farmers</td>
<td>• Organization/System designer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Consumers</td>
<td>• Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Agricultural research and administration</td>
<td>• Customer needs analyzer</td>
<td>Customer helper</td>
</tr>
<tr>
<td></td>
<td>• Administration etc.</td>
<td>• Informer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Community resources mobilizer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Marketer</td>
<td></td>
</tr>
</tbody>
</table>
In Table 5, we can check the agricultural extension target differs depending on the job of agricultural extension, and the roles of the extension officers differ as well. To summarize the significance of the four roles presented in Table 5, Korean agricultural extension officers do not merely act as a technical problem solver as the partner to the customers, but they also play the role of human/organizational problem solver at the same time. They play the role of change agents who lead the changes pertaining to the agricultural sector, the rural communities, and changes in the farmers. Kim (2003, p. 79) set up their required competencies needed to play their comprehensive roles effectively based on the research about competencies of the agricultural extension officers and human resources developers (Table 6).

Table 6

<table>
<thead>
<tr>
<th>Comprehensive roles</th>
<th>Required competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic consultant</td>
<td>• Competency to establish and select the key business strategy</td>
</tr>
<tr>
<td></td>
<td>• Competency to find farmers' performance problems</td>
</tr>
<tr>
<td></td>
<td>• Competency to utilize the technologies and the professional knowledge by the items</td>
</tr>
<tr>
<td></td>
<td>• Competency to exercise influence over the farmers and the interested parties</td>
</tr>
<tr>
<td>Human/community resource developer</td>
<td>• Competency to develop programs fit to the needs of the individuals and the groups</td>
</tr>
<tr>
<td></td>
<td>• Competency to control and facilitate the group atmosphere</td>
</tr>
<tr>
<td></td>
<td>• Competency to identify and assess the organization(system) problems</td>
</tr>
<tr>
<td></td>
<td>• Competency to identify and consult the individual problems effectively</td>
</tr>
<tr>
<td></td>
<td>• Competency to manage the changes</td>
</tr>
<tr>
<td>Administrative expert</td>
<td>• Competency to assess the working environments of the customers</td>
</tr>
<tr>
<td></td>
<td>• Competency to develop the customers' abilities</td>
</tr>
<tr>
<td></td>
<td>• Competency to manage the customers' performance</td>
</tr>
<tr>
<td></td>
<td>• Competency to identify and give the information or the resources needed to the customers timely</td>
</tr>
<tr>
<td>Customer helper</td>
<td>• Professional knowledge on the extension process and system</td>
</tr>
<tr>
<td></td>
<td>• Competency to improve the extension process</td>
</tr>
<tr>
<td></td>
<td>• Competency to utilize the information technology</td>
</tr>
<tr>
<td></td>
<td>• Competency to manage the customer relations</td>
</tr>
<tr>
<td></td>
<td>• Competency to analyze the needs of the extension</td>
</tr>
</tbody>
</table>
Second, it is necessary to classify the above mentioned competencies into different stages of extension government officials, and to develop in a systematic manner programs to support it.

Third, it is necessary to present measures so that the extension government officials can develop their specialty voluntarily (for example, innovative incentives so that they can obtain national licenses, interchange between personnel after reinstating them to the national government status, and vitalization of the specialized extension research meetings).

Forth, because the agricultural extension upholds the ability to provide extension on-site above all, it is necessary to develop the method and conditions for executing actual field initiatives through project type. Moreover, the opportunity to work while cooperating with the agricultural research function is actively provided.

Fifth, in this age of localization, it is necessary for the extension government officials to identify farmers’ needs and to develop solutions instead of simply carrying out orders from the central government. Moreover, it is necessary to make an effort to develop extensions that diversify the roles of the farming personnel and their needs as well as factor in the belief that the farmers’ needs and desires too will be changed after reading the changes taking place in the world in this age of globalization, advancement, diversification of roles, and creation of spaces for culture and leisure.

Conclusion, Recommendations and Implications

Korea experienced a drastic decrease and increasingly aging in the rural population since the 1960s. Meanwhile, the nation has continued to engage in a national agricultural extension that integrated agricultural research and extension centered on the Rural Development Administration. However, as the extension government officials’ status became part of local governments in 1997, the truth is that Korea began facing various difficulties when it came to agricultural extension. Of course, various performances are produced amidst this situation such as agricultural technology development and distribution, development of the farmers’ capability and farmers' organizations, and vitalization of the agricultural sector’s multi-function. However, it is necessary to revive the Korean agricultural extension that is facing the crisis by leveraging the following initiatives so that the extension is recognized as an essential tool needed for the advancement of the Korean agricultural sector and the rural communities.

First, it is necessary to carry out an analysis of the influence of rapid market liberalization on the Korean agricultural sector and to develop the direction for the extension. In this case, change in the greater framework is not required thanks to the voluntary effort made by the extension in the past. However, it is necessary for the extension organizations in the central government, provincial governments, and the regions to agree on the greater framework, and to effectively operate the extension that suits each region’s characteristics.

Second, to ensure that actual performance results benefit the farmers by operating the extension effectively within the agreed greater framework, it is necessary to find important core strategic initiatives, build an effective and efficient organization structure to carry out these initiatives, develop the extension 's method and system so that they are centered on consumers and the fields, increase the competencies of the extension government officials, and to create an environment that will motivate them to work effectively.

There is a saying that a crisis is an opportunity. Although it is true that the market liberalization such as the Korea-US FTA translates into a crisis for our
agriculture and farmers, if the agricultural extension organizations in Korea are to put in their utmost effort to improve the quality of life and income for the farmers, unlike in the past, they will be re-born as the institutions that are recognized and respected, which means that the crisis can be turned to an opportunity. Accordingly, all the members of the institutions that provide extension should join hands in effort to provide quality service to the farmers with high levels of specialization in order to execute agricultural extension desired by farmers.

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Longitudinal Impacts of a Faculty Abroad Program: 1994-2007

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Abstract

When surveyed, faculty generally believe that study abroad is desirable or essential, that it is important to work with people from different cultural backgrounds, it helps people to function effectively in another culture within their profession, and enhances knowledge of current international issues and affairs (Dooley, Dooley & Carranza, 2008; Towsic, n.d.). Sending faculty to programs abroad can therefore enhance academic potential (Özturgut, 2007). The 10-day Faculty Abroad Seminar (FAS) sponsored through the Office of Mexican and Latin American Programs at Texas A&M University was developed to contribute to the internationalization of faculty by directly exposing them to the culture, history, government, business, and language of Mexico. The main objective was for faculty participants to incorporate applicable global experiences into their teaching and research programs. The purpose of this study was to determine the longitudinal impacts of the FAS on participants from 1994–2007 in terms of teaching and research collaboration and personal fulfillment. As faculty participants reflected about their teaching and research impacts, a higher percentage of respondents had teaching impacts compared with research impacts (74 percent and 64 percent, respectively). In describing personal impacts participants’ comments supported the belief that the Faculty Abroad Seminar changed them, personally, and professionally.

Keywords: Faculty Abroad, International Experience, Mexico
Introduction

The premise of this manuscript and subsequent research is this: if we want to internationalize the university, we have to internationalize the faculty. Agricultural and extension educators have a vested interest in internationalization and thus need to provide leadership and direction on how to mobilize faculty through this process (Stohl, 2007).

Sandgren, Ellig, Hovde, Krejci, and Rice (1999) note that effective education happens when participants interact face-to-face with people in the culture they are trying to fully experience. Furthermore, “evidence suggests much can be gained professionally and personally from participation in international research projects” (Harder, Wingenbach, & Rosser, 2007, p. 159). In his study of professors engaged in international scholarship, Viers (2003) noted that scholars interviewed identified several themes relating to faculty involvement in international scholarship including strong study abroad and exchange programs. Many of the opportunities like exchange programs and professional development seminars abroad, have been argued as needed programs for higher education faculty (Harder, Wingenbach, & Rosser, 2007). Lucas (1996) argued that by providing faculty with international opportunities “the institution confirms that international education is important” (p. 29).

The Council on International Educational Exchange, a non-governmental education organization, has been conducting student international exchange opportunities since 1947 and began offering about 200 International Faculty Development Seminars in 1990 in over 40 countries (CIEE, p. 6). “CIEE International Faculty Development Seminars are short-term, concentrated educational experiences designed to explore fascinations, challenge preconceptions, and open eyes to a wide variety of issues shaping the world today” (CIEE, 2009, p. 5). CIEE also noted that the programs are meant to help faculty “increase their international awareness and transform their campus and curricula” (CIEE, 2009, p. 6).

“Internationalization of U.S. campuses is not only recruiting and retaining international students, but also providing opportunities for current faculty members to improve their understanding of the world” (Özturgut, 2007, p. 47). Hand, Ricketts, and Bruening (2007) noted that faculty involvement even in undergraduate study abroad programming has an impact on both the faculty and their students. CIEE (2009) argued that institutional benefits of faculty abroad programs include: internationalization of the curricula, research opportunities for faculty and students, student increase in international knowledge through faculty interaction, and creating communication and links with international institutions.

Abroad experiences have been shown to impact beliefs and values (Dooley, Dooley & Carranza, 2008). Beliefs are “judgments of the credibility of conceptualization” (McLeod, 1991, p. 7). A belief about the ability to integrate global topics into teaching and research is impacted both by affect and cognition. When surveyed, faculty generally believe that study abroad is desirable or essential, that it is important to work with people from different cultural backgrounds, it helps people to function effectively in another culture within their profession, and enhances knowledge of current international issues and affairs (Dooley, Dooley & Carranza, 2008; Towsic, N.D.). Sending faculty to programs abroad can therefore enhance academic potential (Özturgut, 2007).

“Faculty exchanges contribute directly to preparing faculty to face an ever changing world. They expand their world view, develop multicultural teaching approaches, and help to arrange other international experiences for colleagues, students, and others on campus” (Lucas, 1996, p. 35).
Faculty abroad program outcomes include increasing global components in teaching and research (Dooley, Dooley & Carranza, 2008; Sandgren, Ellig, Hovde, Krejci, & Rice, 1999). “New methodologies, modes of thought, hypotheses, different environments, and varied theories make a sojourning faculty member more aware and more mentally prepared for teaching and research” (Lucas, 1996, p. 38). In his study of international faculty experience perceptions, Lucas (1996) added that several faculty noted international experiences allowed them to use more international classroom examples and to express a need for more internationally focused courses in their university’s curricula. Razzano (1994) added that faculty “teaching and research changed for the better because they brought new perspectives and techniques to their work” (p. 166).

Teamwork grew out of the interaction between the participants and produced alternative views to addressing research (Harder, Wingenbach & Rosser, 2007). Razzano (1994) found faculty stated their international experiences allowed them to be information sources to their colleagues by: “influencing others to become involved in international scholarship, by serving as resource persons, and by working to improve professional relationships” (p. 173). Faculty and educators also reported that faculty abroad seminars allowed them to build networks with other international and home country faculty, find new resources to expand international exchange opportunities, and spark new research and publishing opportunities (CIEE, 2009).

Overall, participants in an international exchange program “gain new technical skills as well as a cross cultural experience through their program participation” (Jones & Dos Santos, 2008, p. 278). Lucas (1996) argued “immersion in another culture . . . elevates a faculty member’s sensitivity, tolerance, and empathy for the problems of others beyond the students of the classroom” (p. 37).

Razzano (1994) added faculty noted “tolerance, patience, empathy and respect for cultural diversity” resulted from their international experiences as well (p. 159).

Goodwin and Nacht (1991) surveyed U.S. faculty about participation in international programs. Some key barriers found were policies in regard to promotion/tenure and two career households. Many U.S. institutions do not recognize or reward international work in promotion and tenure decisions at the assistant professor rank. Viers (2003) noted three constraints of international travel emerged from faculty interviewed in his study: role limitations, personal and family roles, and institutional barriers. Faculty members interviewed by Lucas (1996) “expressed a desire for some type of travel funds to be made available, along with additional information concerning opportunities and openings for them to access more international travel” (p. 98).

Faculty members with young children are limited in their ability to study, teach or research abroad. “With so much emphasis on the production of published research, young faculty may be discouraged from experiences which would, ultimately, further the internationalization of the curriculum” (Bull, 1996, p. 29). Stohl (2007) argued:

Junior faculty members are particularly vulnerable and are often encouraged to attend to publishing in their disciplinary journals and taking care of their departmental responsibilities. They often are sent the message that they do not have the luxury of the extra time that is often required to begin an international collaboration. (p. 368)

Without a desire or belief that international experiences are valuable to career enhancement and will not interfere with family, participation in programs such as these are limited (Dooley, Dooley & Carranza, 2008). Another barrier can be
language proficiency. Without some basic language skill, interpretation of culture, interaction with colleagues and overall anxiety regarding travel are impacted (Dooley, Dooley & Carranza, 2008). Faculty rank, family responsibilities, and language skills were constructs of interest for this study.

The Faculty Abroad Seminar (FAS) sponsored through the Office of Mexican and Latin American Programs at Texas A&M University was developed to contribute to the internationalization of faculty by directly exposing them to the culture, history, government, business, and language of Mexico. The main objective was for faculty participants to incorporate applicable global experiences into their teaching and research programs. The seminar promotes internationalization through direct immersion with Mexican universities and organizations. Faculty members apply to participate in a 10-day networking and culturally-rich experience. More than 135 faculty members have participated in this program (Dooley, Dooley, & Carranza, 2008).

**Theoretical Framework**

The theoretical underpinnings for this study are related to Kolb’s Experiential Learning Model (1984). Kolb’s model is based upon a four-stage learning cycle: concrete experiences, reflective observation, abstract conceptualization, and active experimentation. The premise is that experiential learning is “the process that links education, work, and personal development” (Kolb, 1984, p. 4). This can be further expanded with the inclusion of the CRASP model of action research (Zuber-Skerritt, 1997, p. 2). This model includes five stages:

a) Critical (and self critical) collaborative enquiry by
b) Reflective practitioners being
c) Accountable and making the results of their enquiry public,
d) Self-evaluating their practice and engaged in
e) Participative problem-solving and continuing professional development.

The CRASP theory “integrates educational theory and teaching practice through action research” (Zuber-Skerritt, 1997, p. 2). For this study, the context was higher education, the initial recipients were university faculty, with a potential impact on undergraduate students through internationalization of the curriculum to improve ability to work in a global society. Higher education professional development theory is based upon constant improvement of the teaching process using action research as a tool to provide evidence of this improvement. Participation in a faculty abroad program provides professional development in all four stages of the experiential learning cycle and engagement through the CRASP five stages.

**Purpose and Objectives**

The purpose of this study was to determine the longitudinal impacts of the FAS on participants from 1994–2007. Objectives and data collection were based upon (a) faculty characteristics, (b) teaching impacts, (c) research impacts, and (d) personal impacts (including awards and recognitions).

**Methods**

Qualitative research can be defined in general terms as "multimethod in focus, involving an interpretive, naturalistic approach to its subject matter... Qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them" (Denzin & Lincoln, 1994, p. 3). It uses data that are the participant’s and researcher’s firsthand experiences (Merriam, 1998; Moustakas, 1994). The approach “involves a return to the experience in order to obtain comprehensive descriptions that provide the
basis for a reflective structural analysis that portrays the essences of the experience” (Moustakas, 1994, p. 13).

This study used a longitudinal survey to determine program impacts over time. This required reflection and recall for those having participated years ago, which could result in affective and cognitive loss over time. Maturation as a function of the passage of time and other events could have an interaction effect (Campbell & Stanley, 1963). Even though every participant attended the Faculty Abroad experience in Mexico, itineraries were not identical and group dynamics impacted the setting. Therefore, readers should not generalize the findings beyond the context and conditions of this study.

The researchers used a census of all faculty members who participated in the Faculty Abroad Seminar from 1994–2007. Archival documents (N=135) were used to compare survey findings to records from the Office of Mexican and Latin American programs to determine trends and triangulate data. Over this 13-year period, 19 faculty members were either deceased, had left the university, or retired and had no contact information. Thirty-five surveys were submitted from a useable population of 121, for a response rate of 29 percent. Longitudinal studies by their nature often result in increased mortality of subjects.

The Web-based impact survey included four open-ended questions. The participants were sent an e-mail with the link to the survey soliciting their participation in December 2007. A follow-up reminder was sent after the winter break. Some attrition of respondents could be due to the timing of the survey. Responses were not identifiable directly to the participants and were given a number for an audit trail.

Statements from the Web-based survey were analyzed using open-coding and frequency counts to calculate percentages. “Content analysis is a technique that enables researchers to study human behavior in an indirect way, through an analysis of their communications” (Fraenkel & Wallen, 1999, p. 405). Content analysis allows the researcher to reduce data and identify core consistencies and meanings (Patton, 2002). Content analysis requires deciphering skills and pattern recognition to ensure that variations can be “rigidly and consistently applied so that other researchers or readers, looking at the same messages, would obtain the same or comparable results” (Berg, 2001, p. 241). The open coding technique (Strauss, 1987) involves carefully reading the document to determine the concepts and categories. The primary researcher was a former participant of the program and thus had the heuristic ability to vicariously relate to the other participants.

Results

The literature review for this study guided the design of the online survey questions. Constructs centered on (a) faculty personal characteristics (point in career, family responsibilities and previous exposure to a foreign language and/or culture), (b) teaching impacts, (c) research impacts, and (d) personal impacts of participation in the Faculty Abroad Seminar (FAS).

Program planners collected participant profiles and evaluation data over the span of the program (N=135). For the first construct, these archival records were used to determine personal characteristics. Figure one represents FAS point in career (early, mid, or late) based upon the archival records.

According to program records most participants (88 out of 135) were in early career when they participated in the program. It is important to note that the intent of the program was to recruit junior faculty to increase potential longevity at the university, internationalizing the curriculum, and an international research agenda. However, this programmatic emphasis is incongruent with Goodwin and Nacht (2001) who suggest that early career faculty
might have greater demands for tenure and potentially more family conflicts (younger children) that would decrease participation.

The first survey question also probed participants on potential barriers to participation. Three participants (4, 12, 35) mentioned family responsibilities being a hindrance for participation with responses like “difficult time of year with school ending” and a “burden to be away with small children,” but this was not a major barrier to participation for most.

Figure 1. FAS participants’ point in career archival record (N=135).

In regard to language skills (Figure 2) a quarter of participants (34 of 135) had little or no Spanish language proficiency. A third of participants (45 out of 135) were advanced or fluent. Many participants (56 out of 135) did not provide information regarding this question. Basic Spanish was included in the orientation prior to the seminar and planners matched participants with Spanish speakers for translation during collaborative meetings. Respondents indicated “I had no Spanish knowledge, but that did not affect my stay in Mexico” (19) and “I speak halting Spanish, but I traversed Mexico City alone without difficulty and without harassment” (25). Another noted “When I visited Mexico I was in my mid career. It gave me [a] chance to polish my Spanish and collaborate with several colleagues” (21). Language skill was not a major barrier to participation.
With the intent of the program being to focus on faculty with little international experience, it could be expected that more non-Spanish speakers would participate. Although the program is designed to provide novel international experiences for faculty, many participants represented various regions of the world and already had exposure to various cultures. A tenured professor of agricultural education elaborated “I had had previous professional work and academic experiences in several other Spanish-speaking countries” (14). Thus interacting in a culture different from their own was not a novel experience for most faculty members.

The second survey question asked participants to describe and provide examples of teaching impacts as a result of the program. Seventy-four percent indicated an impact on teaching. Examples include incorporating field trips (2, 9, 26), providing more international topics in courses and presentations (4, 6, 11, 14, 15, 16, 21, 23, 24, 28, 31, 33, 35), leading study abroad (6, 7, 11, 25), incorporating case studies (8, 35), designing a trans-national degree program (11), increasing sensitivity to international students (19), and enhancing cross cultural exchanges (22). A representative quote on teaching impacts stated “It prompted me to lead study abroad semesters in Italy and it certainly increased the global aspects of all my courses” (6).

The third survey question asked participants to describe examples of research impacts. Several participants indicated grant writing and funding opportunities (3, 5, 6, 14, 24, 26, 29, 32, 33, 34) while others provided research impacts on authored manuscripts (6, 10, 12, 13, 17, 19, 23, 32) such as creative writings, books and book chapters, and research articles. Other responses included hosting Mexican professors (9), incorporating agricultural statistics into research (14), collaborating with scientists (16, 17, 24, 28, 32, 35), presenting research (15, 21, 24, 29, 32, 33, 34, 35), and providing research exchange programs for graduate students (22, 23, 35). Sixty-four percent provided examples of impacts, while 36 percent indicated no impact on research. One respondent noted “The FAS helped me interview industry experts and analysts in the sector, which helped in gaining insight on the industry and obtaining data” (12). Another elaborated “It was instrumental in helping build research collaborations with colleagues in Mexico” (17).
The fourth survey question asked participants to describe personal impacts as a result of the program. Most (63 percent) found the FAS to be a culturally-enriching experience. Many (29 percent) felt that they made friends in Mexico and at the host institution, and some participants wanted to seek ways to fund projects with Mexican colleagues (14%).

When I was young I traveled to Mexico regularly (mainly to border towns and to the resort areas) so I thought I knew Mexico rather well. Little did I know I really did not KNOW Mexico! My greatest learning curve I experienced while on the FAS was the history and culture of Mexico. I was deeply moved and forever changed by knowing the influence of the Mexican history. (4)

Another expressed
This was a transforming experience on two levels. First, it increased my respect for the Mexican heritage and helped me see the full picture in demographic and economic ways. Second, I had such a positive experience that I continue to seek ways to work with Mexican scientists even now. (5)

Using content analysis to sort for other impacts, the researchers searched for awards and recognitions that resulted from participation. These unsolicited comments were: Senior Fulbright Scholar/Senior Specialist (6), Alcoa International Scholars Award (6), Faculty Research Abroad (24), TAMU Student Research Symposium — undergraduates won best poster award in 2007 (24), Director of International Studies Degree program (6), and International Excellence Award (35).

Some respondents offered suggestions for program improvement. Participant 28 felt that follow-up meetings should be coordinated to bring participants together with university administration to facilitate collaborative opportunities. Another suggested that the itinerary include more flexibility to pursue their personal research contacts (12). Although Texas A&M University has the infrastructure for this program to be hosted in Mexico, one participant wanted to see expansion of the program to other countries (11).

Conclusions, Recommendations, Educational Importance, and Implications
Faculty participants were asked to reflect on the impact the FAS had them personally, as well as on teaching and research. As a result, several themes emerged from faculty reflections. In describing current university positions, most participants noted that they were tenure-track assistant professors. Often tenure track (but not yet tenured) faculty are not encouraged to participate in international work. Furthermore, 25 percent of participants responded that they could not communicate in Spanish. This finding is congruent with research from Razzano (1994) who noted that language proficiency varies widely between faculty with several unable to converse effectively in another language. Although language proficiency was not a barrier to participation in the seminar, it is implied that the program would benefit faculty who do not have international experience the most.

In describing personal impacts participants’ comments supported the belief that the Faculty Abroad Seminar changed them, personally, and professionally. Although not a major barrier to participation in this study, research supported personal and job status limitations of junior faculty.
Often tenure track (but not yet tenured) faculty are not encouraged to participate in international work, and participants noted this limitation to participation in a faculty abroad seminar. Razzano (1994) added these constraints are voiced more by junior faculty. A few participants of this study identified family responsibilities being a hindrance for participation with responses like “difficult time of year with school ending” and a “burden to be away with small children.” Although, career and personal limitations may occur, this should not deter faculty from participating in similar seminar programs. Universities, colleges, and departments should provide information and resources (financial, linguistic, educational, and personal) for junior faculty to incorporate faculty abroad seminar participation into their scholastic endeavors.

As faculty participants reflected about their teaching, research, and personal impacts, a majority of respondents perceived more impacts in their teaching. Faculty noted incorporating case studies and more international topics into their curriculum as a result of the faculty abroad experience in Mexico. Several researchers found similar results (CIEE, 2009; Hand, Ricketts, & Bruening, 2007; Lucas, 1996; Razzano, 1994). It has been found that faculty use their international experiences to expand their curriculum through incorporating their own stories and experiences into their lessons; this allowed faculty to make “their lessons become more vivid and less abstract for their students” (Razzano, 1994, p. 179). Like participants in the Mexico Texas A&M Faculty Abroad Seminar, Lucas (1996) identified several faculty who included international stories, case studies, and pictures to enhance their teaching. As a result, educators and faculty will be able to internationalize the curriculum in their respective colleges through personal experience. It is anticipated that these enhancements will encourage students to pursue study abroad or engage in international/culturally inquisitive scholarship and enrichment.

Respondents’ research impacts were supported by previous studies (CIEE, 2009; Hand, Ricketts, & Bruening, 2007; Razzano, 1994). Hand, Ricketts, and Bruening (2007) found that faculty participation in faculty abroad programs “helped them to develop professionally, encouraging further participation in international research and similar faculty exchange programs” (p. 151). Razzano’s (1994) research further supported study findings by noting that the friendships made during faculty abroad programs encouraged faculty to engage in collaborative research and other professional activities. Participants in the Mexico Faculty Abroad Seminar identified grant writing and funding opportunities; creative and research writing and publishing opportunities; collaborating with scientists; presenting research; and providing research exchange programs for graduate students as research impacts. Sixty-four percent provided examples of impacts. Faculty research impacts are an integral part of higher education faculty development.

Most faculty found the seminar to be a culturally-enriching experience and many felt they made friends. These findings were congruent with Lucas (1996) who noted that faculty found extended family, personal growth and renewal from their international experiences. These new friendships can further productive teaching and research in each country as faculty continue to interact professionally and personally. The faculty abroad experience allowed for concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984).

Improvements can be made to the program to enhance professional and personal impacts. Respondents’ suggestions should be considered for program improvement including organizing follow-up meetings for faculty and administration to discuss and facilitate collaboration opportunities, adding more flexibility to the
faculty abroad programs, and expanding the program to other countries. Future studies should look at other faculty abroad programs from universities around the United States and the world to determine how these programs are structured and benefit faculty. Furthermore, future research should examine how faculty abroad programs can help internationalize curriculum. Additionally, students enrolled in courses taught by faculty who have attended faculty abroad seminars should be surveyed to garner their perceptions of how the curriculum has been internationalized. In order to improve faculty abroad programs, these and other considerations must be explored.

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The Value of Focus Group Discussions for Understanding Barriers to Agriculture-Tourism Linkages in Developing Regions

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Abstract

The value of focus group research is becoming more evident throughout the social sciences, as academicians and practitioners alike search for better ways to investigate and analyze human interactions, beliefs and attitudes in all kinds of business and social situations and contexts. The study of international agricultural development is no exception to this trend. In particular, as agriculture in developing countries evolves and as markets in those countries become affected by industrialization, focus groups provide a credible way for researchers to examine barriers as well as new possibilities regarding relationships between agriculture and new industries. This article demonstrates how focus groups were used to gather information in the U.S. Virgin Islands that helped stakeholders to identify and characterize barriers to developing a stronger relationship between the agriculture industry and the tourism and hospitality industry. The authors wish to acknowledge the assistance of Mr. Carlos Robles and Mr. Dale Morton who organized and conducted the focus group meetings.

Keywords: Focus groups, hospitality, local markets, research methods, rural development, tourism
**Introduction**

Since its resurgence in the 1980s, focus group methodology has added a new dimension to the study of public perceptions and public policy. Having originated in the 1940s as a supplement to quantitative research on public perception, this methodology faded, then made a strong return 40 years later, when it became a popular mode of marketing research (Denzin & Lincoln, 2005). Focus groups are now commonly used to examine not only participants’ perceptions but also the underlying attitudes and beliefs that may lead to those perceptions. In the study of international agricultural and extension education, focus group studies have recently been used to characterize the attitudes and beliefs of extension clientele in Mexico (Tuttle, 2007) and Costa Rica (Dragon & Place, 2006). These studies demonstrated that focus group methodologies are particularly well-suited for investigating stakeholders’ perceptions of specific agriculture-related problems or challenges in developing regions.

As another case in point, researchers used focus groups to examine a situation in the U.S. Virgin Islands. The ever-growing tourism industry there has the potential to spark growth in the agriculture industry by employing local farms to supply local foods, yet such growth has not occurred. To identify barriers to stronger linkages between these two industries, researchers used focus group discussions to investigate the perceptions held by farmers, policymakers, and practitioners in the tourism and hospitality industry. This situation provides a good case study demonstrating how focus group methods can be used successfully as “tools of the trade” to examine community-based data leading to the removal of barriers to progress. The balance of this article will use the Virgin Islands case as a framework to demonstrate key concepts related to focus group methodology. This article should serve as a case study for other researchers in the discipline who desire to use focus group research in the future.

**Objectives and Methods of the Virgin Islands Focus Group Study**

Focus group discussions are group interviews that help researchers describe the consensus of the group (or to describe differing views if no consensus exists). The objective of most focus group discussions is to develop an in-depth understanding of a problem by examining in detail participants’ attitudes and behavior which may have been otherwise difficult to characterize through quantitative survey research (Stewart & Shamdasani, 1998; Morgan, 1997). To do this well, focus group researchers must begin by developing a clear, logical questioning route guided by concrete research objectives. The objective of the Virgin Islands study was to obtain responses from the participants following a questioning route focused on three overarching questions: (1) What are the pertinent issues that need to be addressed in order to develop a successful, sustainable agricultural industry in the U.S. Virgin Islands? (2) What are the barriers that limit the development of a successful, sustainable agricultural industry in the U.S. Virgin Islands? and (3) What recommendations would you make to address these barriers?

Participants (between six and eight) were purposively selected based on their characterization as opinion leaders in three stakeholder groups—farmers, policymakers, and tourism and hospitality practitioners. Krueger (1994) recommended that groups of fewer than six participants lack the dynamics necessary to establish a strong discussion and therefore lead to less credible results, while twelve or more may produce too much information and may not be manageable.

The focus group discussions were managed by three facilitators. The first facilitator introduced the purpose of the
discussion and explained what was expected of the participants. He set the climate for the discussion and explained the procedures and rules: questions would be asked, each participant would be allowed to speak, and the facilitator would moderate, but not participate, in the discussion. The second facilitator led the discussion, controlled the flow, and recorded the responses on a flip chart. Detailed, accurate notes on the flip chart were key because they became the raw data that would lead to the focus group research findings. When necessary, the facilitator asked probing questions, encouraging participants to respond in even more detail. A third facilitator kept notes regarding the substance and context of the discussions; these notes also became data that added credibility to the findings.

The three focus group discussions were recorded on video, and transcripts of the recordings, along with the flip chart notes and the notekeeper’s notes, became the textual data that were analyzed for emergent themes. Taxonomic content analysis is a process of coding or categorizing the textual data in an effort to develop a hierarchy of themes and sub-themes (Holloway, 1997). In this study, researchers sought to develop themes leading to a conceptual description of barriers to a stronger relationship between the two industries. To be useful, this systematically induced description had to be a credible, believable characterization of the phenomenon being studied that emerged logically from the data (Denzin and Lincoln, 2000; Krueger, 1994). Qualitative data analysis involves “examining, categorizing, tabulating, or recombining the evidence” (Krueger, 1994, p. 140) and systematically following the flow of codes, categories, and themes as they emerge. To assist with this process, researchers employed the qualitative analysis software developed by QSR International called NVivo (Version 6). The software greatly simplified the processes of data coding, indexing, and identifying major themes (Weitzman, 2000) and added certainty to the process while easing the analysis workload and saving time.

Findings of the U.S. Virgin Islands Focus Group Agritourism Project

The focus group discussions proved to be a valuable method to characterize the various viewpoints and issues among the groups of stakeholders. The three groups were led through the same discussion route, and results emerged on what were perceived to be the barriers limiting the development of stronger linkages between the agriculture and tourism industries in the U.S. Virgin Islands. The groups came to some similar and some different conclusions about important barriers; nonetheless, all the perceived barriers that emerged from this project were salient to at least one group and therefore deserved the attention of those working to remove the barriers.

The group of farmers identified critical barriers as (1) lack of land, (2) lack of water for irrigation, (3) general infrastructure needs, and (4) lack of access to capital or financial support for farmers. The policy-maker group identified important barriers as (1) lack of a sound, organized domestic marketing program and (2) lack of political support for agricultural development. The third group—the tourism and hospitality practitioners—identified yet a different set of critical barriers: (1) lack of commodities of the specific variety demanded by the hospitality industry, (2) inability of local farmers to supply food and consistently meet demand, (3) inability of the local producers to meet quality standards, (4) lack of education for restaurateurs and hotel chefs on the availability and potential uses of local crops and foods, and (5) lack of an effective distribution system for local foodstuffs.

**Discussion**

In qualitative research, it is common to compare findings and conclusions to previous studies to determine if they contribute to an overarching theory (Denzin
& Lincoln, 2005). Indeed, some of the information gathered through this project in the U.S. Virgin Islands confirmed the observations in existing literature that tourism could be an economic engine for agricultural growth in the region (Torres & Momsen, 2004; Telfer, 2000). Yet, the data also showed that several specific perceived barriers may be preventing synergy between the two industries. Ultimately, the focus group results provided a clearer conceptual framework that was used to develop a formal questionnaire, which was administered to a larger sample of the three stakeholders groups. Results from that survey led to empirically based recommendations for developing new public policy to improve relationships between farmers and the tourism sector of the U.S. Virgin Islands. This is an excellent example of how qualitative research can serve as precursor to more in-depth quantitative efforts.

One important auxiliary benefit from employing the focus group method in this case was that the discussants, through the interaction with their peers, obtained a heightened awareness of various issues in both industries. This was especially evident among the policy makers. This educational function of discussion groups was recognized by several of the participants and is likely to be a factor in encouraging the participants to engage in focus group discussions again in the future.

Conclusion
This focus group project enabled researchers to gain an in-depth understanding of the policy barriers for agriculture-tourism linkages in the U.S. Virgin Islands. Understanding perceived barriers from several different perspectives led to further research, which produced recommendations for action, including improving educational materials for farmers, establishing farmer-chef communications, and educating the tourism and hospitality industry about local foods. Policy makers, especially those who participated in the study, are now more likely to act on these recommendations now that they know the recommendations are the result of a credible research process. As developing countries and regions work to address the many issues related to agriculture’s role in advancing economies and new industries, focus groups will clearly be a useful method in guiding strategic planning and policy making.

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### Journal of International Agricultural and Extension Education

**List of Reviewers for Volume 16, 2009**

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General Requirements
All manuscripts must indicate the type of article—Feature; Commentary; Tools of the Profession; Book Review—on the title page of the manuscript. All manuscripts must be submitted online at http://www.aiaee.org/submit.aspx. Manuscripts cannot be published or be under consideration for publication in another journal.

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