The Journal of International Agricultural and Extension Education (JIAEE) is the official refereed publication of the Association for International Agricultural and Extension Education (AIAEE). The purpose of the JIAEE is to enhance the research and knowledge base of agricultural and extension education from an international perspective.

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. Three types of articles are solicited for the JIAEE: Feature Articles, Tools of the Profession Articles, and Book Reviews.

**Feature Articles**
Feature articles focus on philosophy, current or emerging issues, and the methodology and practical application of specific research and appropriate technologies, which have implications for developed and developing countries. For publication in the JIAEE, feature articles must pass the JIAEE’s double blind, referee process, where peer reviewers evaluate manuscript content and ensure readability. Reviewers are selected from the AIAEE membership. In the double blind, referee process, all references to authors are removed before the manuscript is sent to reviewers. Feature articles may be submitted for peer review a total of three times before they are no longer acceptable for publication in the JIAEE. Failure to meet the submission formatting guidelines will result in an automatic first rejection.

**Other Article Types**
Commentary articles state an opinion, offer a challenge, or present a thought-provoking idea on an issue of concern to international agricultural and extension education, including a published article in the JIAEE. These articles are invited by the editors. Tools of the Profession articles report specific techniques, materials, books and technologies that can be useful for agricultural and extension educators in a global context and/or in a country/region. Book Reviews provide insight on current books related to international agricultural education.

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Editorial Board and Leadership Team .................................................................................................................. 3

From the Past Editor .................................................................................................................................................. 5

Reprint
Addressing the Right Issues and Raising the Right Questions in AIAEE ................................................................. 6
James E. Christiansen, Texas A&M University

Feature Articles
Conversations about inclusion in an AIAEE Context: A Review of Radical Inclusion: What the Post-9/11 world should have taught us about leadership ........................................................................................................... 21
Glen Shinn, Texas A&M University
Kirby Barrick, University of Florida

An Analysis of Evaluation Methods Implemented in Studies Published in the Journal of International Agricultural and Extension Education from 1994 to 2018: A 25 Year Review ................................................................. 27
Theresa P. Murphrey, Texas A&M University
Taniya J. Koswatta, Texas A&M University
Kim E. Dooley, Texas A&M University
Leslie D. Edgar, University of Georgia

The Future of Extension: A Network Emergence Perspective from the Case of the Global Forum for Rural Advisory Services ....................................................................................................................................... 40
Kristin Davis, International Food Policy Research Institute
David Dolly, The University of the West Indies
Alexa J. Lamm, University of Georgia
Kevan W. Lamm, University of Georgia

Facing Boldly the Scourge of Praedial Larceny on Food Production in the Caribbean ........................................... 52
Wayne G. Ganpat, The University of the West Indies
Wendy-Ann P. Isaac, The University of the West Indies

Using Participatory Rural Appraisal for a Community Needs Assessment in Timor-Leste ................................. 63
Kim E. Dooley, Texas A&M University
Catherine Dobbins, University of Arkansas
Leslie D. Edgar, University of Georgia

Considering an Appreciative Approach to International Extension Evaluation ..................................................... 74
Alexa J. Lamm, University of Georgia
Kevan W. Lamm, University of Georgia

The Photo Narrative Process: Students’ Intercultural Learning in Agriculture ...................................................... 83
Emily Bost, Texas A&M University
Gary Wingenbach, Texas A&M University

International Agricultural and Extension Education: Meeting the Unknown Challenges of Tomorrow .......... 99
James R. Lindner, Auburn University
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<tbody>
<tr>
<td>Kristin Davis</td>
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<td>Saipan, MP</td>
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<td>ADPED, Inc.</td>
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From the Past Editor

Hello.

As the current President of the Association for International Agricultural and Extension Education and the Past Editor of the JIAEE, I am excited to share this 25th Anniversary Special Issue of the Journal of International Agricultural and Extension Education. The past 25 years have provided hundreds of scholarship pieces that have critiqued, informed, and advanced agricultural and extension education around the world.

This issue contains articles that cause us to reflect on where we have been and others that challenge us as to where we go next. I included a reprint of a seminal article from the late Dr. James Christiansen published in 2005 encouraging the AIAEE to address key issues as our Association progresses. My hope is you find this set of articles informative and thought-provoking as you prepare your research agenda for the coming years to advance agricultural and extension education.

Here is to the next 25 years JIAEE!

Sincerely,

Robert Strong Jr.
President, Association for International Agricultural and Extension Education
Past Editor, JIAEE
DOI: 10.5191/jiaee.2005.12301
Seminal Article Series

Addressing the Right Issues and Raising the Right Questions in AIAEE

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Abstract

This paper presents the partial development of a theoretical base and related discussion about issues and questions that members of the Association for International Agricultural and Extension Education should address if the Association is to impact agricultural education and agricultural development in its broadest sense, both worldwide and within the nations of its respective members. Eleven postulates are presented that relate to the seven specific objectives currently stated for the Association. The postulates constitute a summary for the incomplete theoretical base that was developed. General problems or issues perceived to exist currently in 2005 are described. Questions to be considered for discussion by members and officers of the Association are identified. Five recommendations for action to provide focus and direction for the Association are presented as well as three concluding questions directed to the reader.

Keywords: Issues, Objectives, Problems, Professional Association, Theoretical Base, Vision

Acknowledgment: This paper was developed and refereed through special invitation from the JIAEE Editorial Board to initiate its inaugural “Seminal Article Series.” This paper is supported in part through State of Texas funds, and funding from the Department of Agricultural Education, Texas A&M University; it was produced, in part, through the Texas Agricultural Experiment Station, College Station, Texas.
What factor, force, item, presence, quantity, or quality exists in programs of international agricultural development and education that is consistent over time irrespective of the organizational structure or institutional setting in which people work? What affects the success or failure of those programs? It is the human element.

But do we anticipate the consequences of our actions when engaged in such programs? Have we been realistic in our endeavors? Do we exercise reasoned, thoughtful judgment resulting from knowledge and careful analysis as we undertake professional activities? We are members of a professional association, the Association for International Agricultural and Extension Education (AIAEE). Have the actions of the Association and its members been realistic, reasoned, thoughtful, and considerate as we undertake activities of the Association on behalf of its members? Have we successfully avoided this all too common organizational pitfall? Or, do we need to make some adjustments in what we do individually and collectively as a professional association? Possibly more importantly, are there issues emerging in international agricultural development that the Association should address through the collective wisdom of its members irrespective of the organizational structure or institutional setting in which the members work? If so, what can agricultural and extension educators do now? Can we remember that if we point our index finger at others and three fingers point back at us that we might involve ourselves more realistically in our profession and Association? Let us gain some insights into these questions.

First, a bit of history is in order. “The Association for International Agricultural and Extension Education (AIAEE) was established in 1984 to provide a professional association to network agricultural and Extension educators who share the common goal of strengthening agricultural and Extension education programs and institutions worldwide” (Association for International Agricultural and Extension Education, n.d., ¶ 1). Its establishment was the result of perceptions of people who had been active on the International Education Committee of the American Association for Teacher Educators in Agriculture (AATEA), now the American Association for Agricultural Education (AAAE), and the International Education Committee of the American Vocational Association (AVA) that neither organization was addressing questions across the whole spectrum of agricultural education nor taking into account the worldwide personnel, status, needs, programs, possible interactions, and opportunities in agricultural education. In short, the time was ripe for establishing an international professional organization that focused on the different knowledge bases and contextual applications constituting agricultural education.

The current specific objectives of AIAEE that evolved over time, have been subscribed to by the membership, and reflect, hopefully, the mission of the Association, are to:

1. Articulate the role of agricultural and Extension education in international agricultural development.
2. Develop state-of-the-art papers on agricultural and Extension education worldwide.
3. Establish a continuing dialogue within the profession in international agricultural and Extension education on a global scale.
4. Establish and maintain a continuing dialogue between AIAEE and donor agencies for international agricultural development.
5. Establish a roster of professionals in agricultural and Extension education who can provide the expertise needed to assist funding agencies in planning and implementing agricultural and Extension education programs and institutions in other nations.
6. Encourage research within the profession that will favorably impact on agricultural and Extension programs in countries around the world.

7. Improve the skills and knowledge of professionals who want to work in international agricultural and Extension education. (Association for International Agricultural and Extension Education, n.d., ¶ 1)

Now that 21 years have passed since the founding of the Association, should we not perform a reality check as to the degree to which these objectives are being met? Should we determine if some of these objectives are still relevant for the foreseeable future? Are there other objectives that need to be established to further the mission of the Association more effectively and more appropriately? What can agricultural and extension educators do now to enhance achieving these and possibly other objectives?

**Theoretical Base and Discussion**

Eleven postulates related to AIAEE objectives have been developed to summarize a partial theoretical base. A theoretical base can set the stage for conducting different forms of scholarship, for considering policy, for establishing direction, and for establishing points of reference. The theoretical base presented here undergirds the premise that issues exist that members of AIAEE must address if the Association, collectively, is to have an impact on agricultural development and agricultural education, both worldwide and within the nations of its respective members. The postulates are:

**Postulate 1.** Because, in other settings, it has been shown that a multiplier, compounding effect results when individuals or organizations collaborate with other individuals or organizations to pursue a common goal, it can be theorized that AIAEE would benefit from actively seeking and establishing collaborative relationships with other international agricultural development-related organizations and associations to develop such activities as joint conferences, joint programmatic initiatives, joint legislative recommendations, jointly sponsored publications, etc.

**Postulate 2.** Because the members of an effective international association focus on actions that reflect emerging trends and issues relevant to that association’s mission and thus articulate their roles in doing so, it can be theorized that AIAEE members, especially as social scientists, can undertake, promote, support, or otherwise engage in activities that relate to at least 12 of the 40 sections of Agenda 21, the United Nations plan of action for sustainable agriculture, rural development, and the environment.

**Postulate 3.** Because social scientists have undertaken such activities in other fields and because those activities have borne fruit in advancing those fields, it can be theorized that as social scientists in international agricultural and extension education we can and should undertake such efforts and that the fruit borne will advance our field also.

**Postulate 4.** It is theorized that while the nature and structure of the Association’s annual conference and articles in the Journal permit a continuing dialogue to occur on a global scale to a limited extent within the profession in international agricultural and Extension education, such efforts can be expanded successfully, as has been the case in other disciplines, e.g. the medical professions.

**Postulate 5.** Information and perceptions that people receive about the Association will be much more focused, specific, and less ambiguous if information concerning the areas of expertise that members can bring to the process of agricultural development were divided into knowledge bases and contextual applications when presented in AIAEE publications, Web sites, brochures, and other materials.
Postulate 6. It can be theorized that outsiders and prospective members may have the impression, especially after perusing several issues of the Journal and The Informer, that there is not a coherent, consistent, continuing focus in the activities of the Association.

Postulate 7. Because differences exist in perceptions and values concerning scholarship, it can be theorized that serious dialogue through live discussions, Journal articles, and conference presentations would bring clarification and better understanding about what the scholarship should be for which the Association strives as it works to assist its members and to increase its influence and effectiveness.

Postulate 8. While related to Postulate 7, it can be theorized that AIAEE Objective 6 can be broadened to encompass multi-dimensional scholarship and not imply a focus based solely on research.

Postulate 9. Because of the lessons learned in the successful collaborative Texas-Mexico agricultural development initiative, and because of lessons learned or not learned in other settings, it may be theorized that such lessons learned may be applied by AIAEE members in other development settings.

Postulate 10. Because many members of AIAEE have not had experience with problems and procedures faced in managing programs or projects and the underlying principles of management and development, but are likely to engage in such efforts in the future, it may be theorized that such topics could be featured in AIAEE conferences, publications, research, and in collaborative efforts with other organizations and associations, as has been demonstrated in other disciplines, e.g., the management field, and thus help to achieve Objective 7.

Postulate 11. Because limited alignment exists between published topics in journals relating to international agricultural and extension education and international agricultural development sponsored by professional associations and the course content at universities that have been examined, at least in the United States (Acker & Grieshop, 2004), it can be theorized that a serious “disconnect” exists that could dilute the effectiveness of graduates of programs in higher education or the membership of professional associations interested in working in international agricultural and extension development education.

Be forewarned. The author of this paper is not reporting specific research. Instead, questions are raised and food for thought is presented relative to the stated objectives of the Association. The theoretical base presented and the comments related to the objectives are the heart of this paper.

First, it is recommended very strongly that the reader, besides reading this paper, read the excellent, appropriate, and timely keynote address, “Leadership through Service: All the Easy Jobs Have Been Taken,” presented by David G. Acker (2005) at the 21st annual meeting of AIAEE on May 25, 2005 and reprinted in the Spring 2005 issue of the Journal of International Agricultural and Extension Education.

Why? Dr. Acker outlined four things very well: 1) the kind of world in which we currently live and work, 2) our grand challenge as an Association, especially as it relates to the eight goals of the 2000 Millennium Summit, 3) the kinds of leaders needed to meet this grand challenge, and 4) ten especially important things that agricultural and extension educators can do right now. As there was no need to reiterate the excellent points made by Dr. Acker, this writer could address points arising from the mission and previously stated specific objectives of AIAEE.

Several international organizations and/or publications exist with similar or related missions pertaining to international agricultural education and development, e.g., Association for International Agricultural and Extension Education,
European Seminar on Extension Education,
The [formerly European] *Journal of Agricultural Education and Extension*,
Southern and Eastern African Association of Farming Systems Research-Extension (SEAAFSRE), *Journal of Extension Systems*, and Association for International Agricultural and Rural Development. These and other resources with compatible goals and activities exist. In other settings, it has been shown that a multiplier, compounding effect results when individuals or organizations collaborate with other individuals or organizations to pursue a common goal. Therefore, a rationale for Postulate 1 can be developed and supported.

**AIAEE Objective 1. Articulate the role of agricultural and Extension education in international agricultural development [and] review a vision for the future, 11 years old.**

AIAEE has progressed and matured over the years. But has it achieved its potential? Consider the following: Roger Steele, president-elect of AIAEE in 1994, stated that “The wave of the future is participatory development whereby aid-givers and –receivers work together as partners” (Steele, Summer 1994, p. 1) when he announced the theme for the 1995 AIAEE conference in *The Informer*. He stated further that as professionals involved in social change that there were “many ways [in which] we can form partnerships with others engaged in the same endeavor” (p. 1). He listed four actions:

- Increased collaboration between non-governmental, governmental, universities, research centers, and private organizations, forming coalitions with professionals from various agricultural and social science disciplines, ensuring greater diversity in the profession, that is, providing opportunities for women, and people from diverse ethnic and geographic areas to become involved in AIAEE, and a better linkage between various components of the international, national, and local agricultural systems.” (p. 1)

About the same time, S. Michael Campbell (1994) completed an analysis of the philosophy of international agricultural and extension education and then compared this philosophy in a qualitative study of the opinions of 17 experienced members of AIAEE. Among his conclusions about the four problems faced by the Association at that time were the following: The problems 1) “…mirror the problems in our society at large, particularly as they relate to the idea of diversity. The diversity of the AIAEE was seen as both its strength and its weakness….This problem appeared most often in terms of members feeling a sense of separateness or otherness. This otherness was often sensed as a kind of discrimination” (p. 2). 2) A general problem in communication was perceived to exist and “developing inclusive methods of communication appears to be a task that AIAEE should take on….Developing non-hierarchical communications was the other important issue for the group” (pp. 2-3). 3) A duality of focus existed. “AIAEE appears to focus on the improvement of the lives of its clientele. There is confusion, however, as to who that clientele is ...[with] confusion over whether the organization should work exclusively with its members and other organizations, as pointed to in the by-laws, or work directly to improve the lives of people” (p. 3). 4) Related to the question of duality of focus was a conclusion about the role of AIAEE “...in developing an international agricultural and extension education curriculum. While it seems that most members felt it important to ground such a curriculum in the traditional AgEd areas of experiential and relevant educations, many also expressed the need for such an education to be much more broadly based. Such an education should include such humanistic subjects as philosophy, psychology, anthropology, mythology, and spirituality, in addition to the traditional areas in AgEd, e.g., program
development, evaluation, etc....It was suggested that we might even need to develop a new discipline, which would be called something like international agricultural development education” (p. 3).

Over 100 members worked in small groups during the 12th annual conference of AIAEE in Arlington, Virginia, USA in March 1996, using the concerns and conclusions identified by Campbell as described above as their point of departure, to project to 2005 a vision of what AIAEE would be or should be in order to provide guidance to the newly elected AIAEE leadership team for 1996-1997. Steele (1996) summarized the 26 key points of the members’ preferred future for AIAEE. While paraphrased and not listed here in their entirety because of space limitations, they related to AIAEE being highly participatory with 50-100 affiliates, being composed of professionals engaged in reflective analysis of critical agricultural issues, being characterized by greater participation of AIAEE members, decentralization and growth of communication between members, having established linkages with other organizations, having a diversity of people and ideas, having members enhancing their role as change agents, having linkages with other organizations, and establishing partnerships to build bridges “…between research and practice in social, biological, and physical sciences” (p. 1). Also, “…At the end of the next decade, members will have felt that AIAEE is inclusive, rather than hierarchical. Information will have been readily exchanged among members because of positive, supportive environment within the AIAEE” (p. 1). Graduate students will have scholarships and mentorship arrangements available. “In 2005, women will be even more visible in leadership roles in AIAEE....Even though AIAEE will have proactively addressed current issues, the focus on agricultural and extension education will have been maintained” (p. 1). A matured Journal meeting the needs of a broader audience with a diversity of content will exist. “The name will have changed from JIAEE to IJAEE to represent an enlarged world view, transitioning from a predominant U.S./Western focus to looking at the world to a more global perspective” (p. 2). AIAEE will be facilitating global linkages and “national associations/societies of agricultural and extension education professionals will have emerged. By 2005, AIAEE will have promoted and enhanced the benefits to be derived from linkages between similar organizations in various countries” (p. 2).

As a person in 2005 reading this vision for 2005, and seeing where we are today, which parts of this vision do you believe have been achieved? Which parts have fallen completely through the cracks? Which parts that have not been achieved are as critical to our responsibilities as social scientists working with different clienteles in varied national and international settings that they should become immediate items for action? Is it time to revisit our vision for AIAEE and prepare a realistic revised vision?

The members of an effective international association focus on actions that reflect emerging trends and issues relevant to that association’s mission and thus need to articulate their roles in doing so. In the case of AIAEE, a “people” organization, it is apparent that AIAEE can undertake, promote, support, or otherwise engage in activities that relate to at least 12 of the 40 sections of Agenda 21, the “comprehensive plan of action to be taken globally, nationally, and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which [there are] human impacts on the environment....Commitments to Agenda 21 were strongly reaffirmed at the World Summit on Sustainable Development (WSSD) held in Johannesburg, South Africa from 26 August to 4 September 2002” (UN Department of Economic and Social Affairs, Division for Sustainable Development,
Those 12 sections of Agenda 21 are 1) international cooperation to accelerate sustainable development in developing countries and related domestic policies, 2) promoting sustainable agriculture and rural development, 3) global action for women towards sustainable and equitable development, 4) children and youth in sustainable development, 5) recognizing and strengthening the role of indigenous people and their communities, 6) strengthening the role of non-governmental organizations, partners for sustainable development, 7) strengthening the role of farmers, 8) transfer of environmentally sound technology, cooperation, and capacity-building, 9) promoting education, public awareness and training, 10) national mechanisms and international cooperation for capacity-building in developing countries, 11) international institutional arrangements, and 12) information for decision-making. These needs and opportunities for Association members to become involved underlie Postulate 2.

**AIAEE Objective 2.** Develop state-of-the-art papers on agricultural and Extension education worldwide.

Objective 2 and Objective 6 discussed below are related in terms of potential impact. Radhakrishna, Connors, Elliot, and Verma (2001) reported a survey of members of the Association undertaken by Eaton, Radhakrishna, and Diamond in 1994, 10 years after the organization of the Association. At that time, its members perceived that the two publications of AIAEE, *The Informer* and the *Journal of International Agricultural and Extension Education*, “...reflected relevant issues related to international agricultural development” (Radhakrishna, et al., 2001, p. 31).

The articles published in the *Journal* from 1994 through 2000 were also reviewed by Radhakrishna et al. (2001). Their review included subject matter topics, scope, focus, and program areas. They reported that “1) authors from a variety of public and private organizations representing all geographical regions of the world published articles in JIAEE, 2) articles published in JIAEE tend to be more research-oriented, and 3) subject matter topics such as extension education, agricultural education, sustainability, curriculum and global issues ...were the topics frequently published in JIAEE” (p. 31). A breakdown of their analysis of the subject matter of the 101 feature articles published from 1994-2000 is presented in column one in Table 1 below.

The subject matter categories of the 107 feature and 5 commentary articles that were published in the *Journal* from the spring issue of 2001 through the summer issue of 2005 were also examined by this writer. Shifts or changes in topics or types of articles appearing in the *Journal* since 2001 have occurred. Eleven more categories were added to the 19 categories reported earlier for the 1994 – 2000 period.

As can be seen in Table 1, while roughly the same numbers of articles were published in 11 of the 1994-2000 categories, 37 articles appeared in new categories from 2001 through 2005. As one examines the table, one should draw his/her own conclusions about the reasons behind the shifts that are displayed.
Table 1

**Subject-matter Categories of Articles Published in JIAEE, 1994–2005 (N = 213)**

<table>
<thead>
<tr>
<th>Subject Matter Categories</th>
<th>1994-2000¹</th>
<th>2001-2005²</th>
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<tbody>
<tr>
<td>Agricultural extension, both programs and personnel</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>Agricultural vocational-technical education, primarily secondary level</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Sustainability</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Curriculum development and content</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Global issues</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Women’s programs and issues</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>International agricultural development</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Evaluation, programs and techniques</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Technology transfer</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Indigenous knowledge</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Youth, including international knowledge</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Small farmers</td>
<td>3</td>
<td>2</td>
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<tr>
<td>Collaboration</td>
<td>3</td>
<td></td>
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<tr>
<td>Student performance</td>
<td>2</td>
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<td>Leadership</td>
<td>2</td>
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<tr>
<td>Adult education</td>
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<td></td>
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<tr>
<td>Farming systems</td>
<td>1</td>
<td></td>
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<tr>
<td>Job satisfaction</td>
<td>1</td>
<td></td>
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<tr>
<td>Other, dairy</td>
<td>1</td>
<td></td>
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<tr>
<td>Internationalizing the curriculum</td>
<td></td>
<td>8</td>
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<tr>
<td>Organizations, organizational support, university partnerships</td>
<td></td>
<td>5</td>
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<tr>
<td>Participatory education, programs</td>
<td></td>
<td>4</td>
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<tr>
<td>Applied research and techniques</td>
<td></td>
<td>4</td>
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<tr>
<td>Technical subjects, e.g., dairy, AIDs</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Rural education, rural development</td>
<td></td>
<td>3</td>
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<tr>
<td>Academic preparation of faculty</td>
<td></td>
<td>3</td>
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<tr>
<td>Preparing to work in the international arena</td>
<td></td>
<td>2</td>
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<tr>
<td>Using available resources, e.g., library</td>
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<tr>
<td>Communication for development</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Adjustment of international students</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>101</strong></td>
<td><strong>112</strong></td>
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¹ 18 issues of the *JIAEE*. Feature articles reported only.
² 14 issues of the *JIAEE*. Includes both feature and five commentary articles.
Please note some of the changes that stick out. In the past five years, only one article was published that pertained to global issues. Eight articles, however, related to internationalizing the curriculum, five pertained to organizations or organizational support and institutional partnerships, and four pertained to participatory education and programs. While Radhakrishna et al. (2001) noted that articles in the Journal tended to be research-oriented, note that since then four articles also dealt with specific research techniques rather than with research projects per se, e.g., “Handling of Nonresponse Error in the Journal of International Agricultural and Extension Education” (Lindner, 2002). Also, note that 15 articles in the past five years (13.4% of the total) related in some way to people becoming knowledgeable about, being prepared to work in, communicating in, or adjusting to cross-cultural settings in the international arena.

The record described above pertains to papers or articles that have appeared in the Journal of the Association. However, to this writer’s knowledge, the Association has not sponsored or sought the preparation of inclusive “state-of-the-art papers on topics of agricultural and Extension education worldwide” (Association for International Agricultural and Extension Education, n.d., ¶ 1). Professional associations in other disciplines do seek out and do sponsor benchmark papers, manuals, and books applicable to their field, e.g., the Handbook or Research on Teacher Education, which was a 1990 project of the Association of Teacher Educators. Social scientists have undertaken such activities in other fields and those activities have helped to advance those fields, thus basis for Postulate 3.

AIAEE Objective 3. Establish a continuing dialogue within the profession in international agricultural and Extension education on a global scale.

The nature and structure of the Association’s annual conference and articles in the Journal permit such a dialogue to occur to a limited extent. Such efforts can be expanded as has been demonstrated in other fields, e.g., the medical profession. Consequently, the rationale for Postulate 4 can be supported.

AIAEE Objective 4. Establish and maintain a continuing dialogue between AIAEE and donor agencies for international agricultural development.

Other than involving people from such agencies as Food and Agricultural Organization (FAO), United States Agency for International Development (USAID), and International Fund for Agricultural Development (IFAD), as speakers at annual conferences, such a dialogue has not occurred. To what extent have we collectively, rather than individually, provided input into proposals being prepared for development programs and projects? What is our documented “track record” in this area?

AIAEE Objective 5. Establish a roster of professionals in agricultural and Extension education who can provide the expertise needed to assist funding agencies in planning and implementing agricultural and Extension education programs and institutions in other nations (and focused activities of AIAEE).

This writer has heard potential members of AIAEE express the opinion on occasion that “your Association seems to try to be all things to all people in agricultural development. If that is the case, how does it make a difference?” Or, as one person put it, “It appears that AIAEE must be for generalists and generalists don’t accomplish much.” Or, in an e-mail received was this query: “I gather from your Web site that AIAEE members have experience in many different areas. I am working in Tanzania. How can I find out who can help me figure out a way to get some farmers here to adopt improved millet varieties? They [farmers] don’t like new things.” An informal survey among several long-time members of the
Association who live in different countries and who in turn have worked in other countries revealed that they have encountered similar comments or questions. Why is this occurring?

No distinction or differentiation is made between the bases of knowledge possessed by the members of the Association or the contextual applications of the setting, area, or program on which members focus their efforts while applying the knowledge base(s) in which they have expertise. Might this be one of three contaminating factors at work as the areas are diverse in which members have expertise as described on the Association’s Web site? It states that:

The AIAEE seeks to serve as a worldwide catalyst in bringing the collective expertise of agricultural and Extension educators to bear on the problems of human resource and agricultural development. Areas of expertise that agricultural and Extension educators can bring to the agricultural development process include agricultural education in public schools, rural youth programs, agricultural Extension, teacher education in agriculture, human resource and development programs, research and evaluation studies, institution building for agricultural development, programs for agricultural curriculum development and teaching methods, in-service education, human resource management programs, youth development, needs analysis and program development. (Association, n.d., ¶ 2)

A knowledge base is “...knowledge...expressed in articulated understandings, skills, and judgments which are professional in character and which distinguish more productive [members] from less productive ones” (Reynolds, 1989, p. ix). “This body of knowledge is undergirded by theory, research, and a set of professional values and ethics” (Corrigan & Haberman, 1990, p. 195). A contextual application is the setting and related conditions, often thought of as a “field,” in which the educator, change agent, programmer, administrator, planner, student applies the knowledge bases with which he or she is engaged. For descriptions and examples of different knowledge bases and contextual applications, including those listed in Table 2, please view the Web site: http://www.aged.tamu.edu/workgroups/gc90.asp, which was developed by faculties in agricultural education at Texas A&M University and Texas Tech University, U.S.A.

Table 2

<table>
<thead>
<tr>
<th>Knowledge Bases</th>
<th>Contextual Applications</th>
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<tbody>
<tr>
<td>Communications</td>
<td>Agricultural communications</td>
</tr>
<tr>
<td>Delivery strategies</td>
<td>Distance education and technology-enhanced instruction</td>
</tr>
<tr>
<td>Evaluation and accountability</td>
<td>Extension education</td>
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<tr>
<td>Leadership</td>
<td>International agricultural development education</td>
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<tr>
<td>Planned change</td>
<td>Leadership and community education</td>
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<tr>
<td>Planning and needs assessment</td>
<td>Teacher education</td>
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The advantages of providing specificity and focus by identifying the knowledge bases and contextual applications in the areas in which members have expertise and work so as to describe them and to interpret their work and capabilities more accurately underlies Postulate 5.

A second contaminating factor also may exist that causes people to perceive that a lack of focus exists within the Association based on the wide variety of topics of articles appearing in the Journal as described earlier. For example, outsiders and prospective members may have the impression, after perusing several issues of the Journal, that there is not a coherent, consistent focus in the Association. It must be recognized, however, that this writer has not undertaken a survey of perceptions of members and non members to determine if this truly is the case. As this factor is known to be at work in other fields, Postulate 6 was developed to address this issue.

A third contaminating factor may also cause people to perceive that there is a lack of focus within the Association. What is it? There has not been generally available to the membership since 2001 an updated, published, annual program of work or program of activities. Such a program provides insights as to activities and direction currently being undertaken.

What should be done to improve the perception that the Association has focus and direction? The writer offers five recommendations. First, develop a listing of knowledge bases held and contextual applications engaged in by members. Such a listing will help differentiate the areas in which expertise is held by members. Second, when developing a listing of Association membership, solicit from members their primary and secondary knowledge bases and their primary and secondary contextual applications to be listed along with other personal or professional information in the membership directory. Third, prepare a consolidated listing of members by primary and secondary areas of knowledge base and contextual area and make this information available as an Association information bulletin and/or post it on the Association’s Web site. Fourth, establish themes well in advance for each issue of the Journal such as is done now when establishing themes for each annual conference of the Association. Fifth, place the program of activities developed annually by the Leadership Team on the Association’s Web site, in the Association newsletter, The Informer, and possibly in the Journal.

AIAEE Objective 6. Encourage research within the profession that will favorably impact on agricultural and Extension programs in countries around the world.

Many members of the Association are engaged in research and other forms of scholarship because of their academic endeavors and positions in institutions of higher education. Many such efforts have been noteworthy. Have we, however, emphasized research per se and have not emphasized enough scholarship in all of its forms? Have we engaged in scholarly activities that truly have made a difference in our profession? Have members of our Association undertaken truly new scholarship or have we simply ridden on the coattails of what others have done in other fields? What new ideas in teaching and learning have we developed, tested, and applied? What new “learnings” have we accomplished? What have been our unique contributions to at least 12 common learning theories, to adult education, to planning models, to extension education, to applications of technology, to organizational change, to change theory, etc.?

Let us use change theory as an example. Many, many people in our profession work with change. We try to influence change, to get people to adopt changes, to keep them from going off the deep end by adopting inappropriate changes, to make organizational changes, to develop strategies of change that are appropriate within the culture with which we work, to
anticipate the consequences of change, etc. Many of us are familiar with and have used and applied different models, theories, and writings about change, e.g., Everett Rogers’ innovation-decision model, Kurt Lewin’s three-stage model, Lippit, Watson, and Westley’s seven-stage model, Jerry Porras’s stream analysis for organizational change, Brock and Salermo’s six-stage change model, Geoffrey Moore’s crossing-the-chasm technology-adoption model, and Bennis, Benne, and Chin’s writings on theory of change. However, what and how many unique contributions have we made in agricultural and extension education to advance change theory and its application? It may be that some of Düvel’s work in South Africa (Düvel & Abate, 2005), in which his findings illustrated the importance of intervening variables on influencing decision making and adoption behavior, are examples of a few exceptions to this condition.

Miller and Sandman (2000) in their excellent, thought-provoking article, “A Coming of Age: Revisiting AIAEE Scholarship,” presented and defined scholarship with its multidimensional facets and presented six categories of questions pertaining to scholarship for members of AIAEE to consider, whether they be academicians or practitioners. They pointed out that “Discovery, integration, application, and teaching of knowledge are central to the mission of higher education....A dialogue concerning the dimensions of scholarship and the implications for the profession is needed” (p. 39). They concluded that “the challenge to AIAEE is to further [sic] develop and support academicians and practitioners as reflective or scholarly practitioners....The current multidimensional definition of scholarship can energize and discipline AIAEE. Our scholarship has, too often, tended to be accounts, stories, if you will, of projects and activities. Account after account of study abroad programs and study tours, for example, do not advance the knowledge base of the discipline unless someone analyzes these experiences and makes meaning from them for the discipline” (p. 40). They further concluded that “if we are to become a ‘discipline,’ then we, as a profession, need more than common interests evolving from practice” (p. 37). Differences in perceptions and values exist with respect to scholarship, but scholarship is multi-dimensional. As differences can be resolved and consensus in understanding can be developed, it thus is possible to formulate Postulates 7 and 8.

AIAEE Objective 7. Improve the skills and knowledge of professionals who want to work in international agricultural and extension education.

AIAEE is a “people” organization. As such, many of its members have been, are currently, or will be involved in programmatic development efforts in different countries, many of them collaborative efforts. Because we are in the “people” business, are we truly cultivating the professional inspired and inspiring leader-managers that Bruce Lansdale (2000) described, leader-managers who are successful? It has been documented that “underlying all successful development programs is the thread of seeking out, paying attention to, involving, working with, collaborating with, and obtaining feedback from the intended beneficiaries of development programs, projects, and activities” (Christiansen, 2000, p. 227). But, before this “product” or “outcome” principle of development is applied, can be achieved, or can be evaluated (Stufflebeam, 1973), other “process” or “ways and means” principles that have emerged from lessons learned in development must be followed by people engaged in collaborative development efforts.

Piña (2001) stated six of those lessons well in reporting on 22 successful collaborative Texas-Mexico agricultural development projects that took place from 1993 through 2001. Those projects involved 63 faculty members from the College of
Agriculture and Life Sciences of Texas A&M University and 43 counterparts from the Technical Consortium from Northeast Mexico. The lessons were that (1) dialogue must take place between the personnel from each country in identifying the issues to be addressed; (2) representation is needed from all groups benefiting ultimately from joint efforts at all stages of the process; (3) cost sharing is essential for every activity undertaken, (4) all projects need a marketing component, whenever possible; (5) students must be involved at every opportunity; and (6) joint evaluation of outcomes to determine impact on policy is essential.

Although lessons for success were demonstrated in the successful collaborative Texas-Mexico agricultural development initiative, appropriate lessons have not been learned in other settings (e.g., Paddock & Paddock, 1973; Paul, 1982; Rondinelli, 1977). Many members of AIAEE have not been in a position to observe such lessons and the application of relevant underlying principles of development, but are likely engage in such efforts in the future. Other disciplines, e.g., the management field, have demonstrated success in preparing people to manage programs and projects. By examining Postulates 9 and 10, one result would be to help achieve Objective 7.

A limited alignment exists between published topics in journals relating to international agricultural and extension education and international agricultural development sponsored by professional associations and the course content at universities, at least in the United States (Acker & Grieshop, 2004). Consequently, a serious “disconnect” could exist that dilutes the effectiveness of graduates of programs in higher education or members of professional associations wanting to work in international agriculture. Reducing this disconnection as addressed in Postulate 11 would also help to accomplish Objective 7.

Other Issues and Questions

Space limitations preclude discussion of other issues related to the specific objectives discussed above that need to be raised and considered by the profession and the Association. Each of them can fit into an expanded theoretical base. Among them are the following:

1. Are we developing effective international partnerships between and among universities engaged in development activities in agricultural education? (Etling, 2005)

2. Time and time again, we find people who advise in, prepare for, or manage agricultural development activities who do not handle well the 24 factors common in managing development programs (Christiansen, 2000). Could we highlight successful program and management practices as a theme in Journal articles and conference topics to help people prepare better to manage development efforts successfully? Doing so would assist in achieving Objectives 1, 2, 3, and 7.

3. Have we explored, selected, and used effective methods to encourage and then to prepare young professionals to work in the international arena in agricultural development knowing that people who entered the work force in the year 2000 can expect to work on two continents during their careers?

4. An integrated and holistic approach (Squire, 2003) to sustainable agricultural development is effective. However, this approach has not been used in many development efforts. Is this an example of an emphasis upon which the Association and its members could focus when working with development organizations, undertaking scholarship, establishing themes for conferences and the Journal, and when preparing people to work in the international arena?

5. Why are a considerable number of people who once were active in the Association not active currently, even
though they still work in international agricultural development?

**Conclusion**

As the reader of this article, and as you mentally point your finger at the writer, can you answer the questions implied in the three fingers pointed back at yourself? First, what are you next going to do, in and for, this profession? Second, what will you emphasize in developing both a focus and a long-term commitment in your own professional career in international agricultural development? Third, knowing that there are many ways in which you can make a contribution, what is realistic for you to do for yourself, your colleagues, the clientele with whom you work, and the Association for International Agricultural and Extension Education, and will you let people know what you can and are willing to do?

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Conversations about inclusion in an AIAEE Context: A Review of
Radical Inclusion: What the Post-9/11 world should have taught us about leadership

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Keywords: Agriculture, Collaboration, Education, Extension, Impact, Inclusion

Martin Dempsey, U.S. Army Ret. and Rubenstein Fellow at Duke University, and Ori Brafman, a Distinguished Teaching Fellow at UC Berkeley with research in distributed networks, have analyzed today’s leadership landscape. Popular press reviews of the 2017 book, Radical Inclusion, report broad implications for corporate leadership and organizational improvement. This review compares and contrasts Dempsey and Brafman’s leadership principles with implications and applications for international agricultural and extension education networks.

The Operating Environment

The central feature of part 1 is the effects of operating environments, and that culture and context are crucial in decision-making processes. Listening and collaboration have always been essential elements but are more critical in today’s education and training environments. The authors argue that emerging leadership principles mutate from the core DNA of our culture. Identities based on communities (contexts) shape our identities, our sense of security, and create order.

As a point of reference, 9/11 marked a dramatic cultural change. During the rapid change, instincts called for more control—but these instincts proved wrong! During the 9/11 chaos, “brotherhood” became more inclusive but at the exclusion of others. Facts became less reliable due to digital echoes—a recurring expression of the rapid transmission of information but information that became significantly distorted in the communication.

Dempsey and Brafman present six leadership tools for today’s operating environment—“give them memories; make it matter; learn to imagine; develop a bias for action; co-create context; (and) relinquish control” (p. xiii). Simultaneously, Dempsey and Brafman identify valued instincts as “listen; amplify, and include.” They advise that the suite of nine tools and instincts be understood and practiced as a cohesive set—not à la carte.

The Operating Environment in Five Points

- Today’s rapid change is due to media speed, technologies, and shifting organizational cultures.
- Recognize “facts vs. narratives” are clouds of unknown or distorted information.
- Digital echo narratives emerge from events, but often the echoes are incorrect.
- Communities spawn identities and narratives that become new faces of the organization.
- “Most interesting” often sways public acceptance rather than “validated facts.”

Implications from The Operating Environment

- Distinguish between inclusion and decentralization and that “more of us—all of us” produces a synergy that is powerful and inclusive.
- Cognitive biases affect the speed of recognition and the authenticity of the story.
- Bridge communities and distill the fog that exists.
- Compelling, emotional, and repeated narratives often channel acceptance and public perception.
- Use the 80/20 principle to identify and focus on the 20 percent of the “echo” that really counts.

Applications from The Operating Environment

- Embrace feature narratives that describe the value and impact of the agricultural and extension education
networks as a larger interconnected organization.

- Develop a campaign based on compelling, emotional, repeated narratives.
- Address the inclusion of multiple actors and strategies that engage the organization.
- Develop narratives that become the face of the organization and that match the culture and the context of the professional society.
- Recognize and co-create bias for action that advances public good and increases shared situation awareness.

The Operating Environment of AIAEE

AIAEE was founded as an organization “for agricultural and extension educators who share a common goal of strengthening agricultural and extension education programs and institutions worldwide.” In that regard, the organization should or must operate in an inclusive environment. Agricultural education, from a U.S. perspective, generally includes school-based educational programs that were created and are sustained in the career and technical (formerly vocational) arena, and extension education generally defines programs designed to prepare educators for the non-formal instructional roles associated with the USDA and U.S. colleges of agriculture and related sciences.

To be truly an “international” organization, AIAEE must operate beyond the US-centric definitions to include the preparation of educators in all disciplines of agriculture and non-formal educators under the auspices of agriculture ministries worldwide. An inclusive environment dictates that leadership within the organization should manifest itself in ensuring that agricultural and extension educators have opportunities to participate fully in the programs of the society regardless of their homeland. Connecting with the local leaders is critical, including interactions with local advisory councils and others with a stake in creating an open environment for change.

Harnessing The Power of Inclusion

Part 2 examines economics and the power associated with inclusion. Chapter 3, dealing with the economics of inclusion, notes that a disconnected individual with interests and aspirations becomes more connected by showing passion and curiosity and through groups with similar interests.

Dempsey and Brafman discuss three central points to harness power including the cost of exclusion, bringing a cause to preexisting communities, and that inclusion is participating, personalizing, and purposeful. The point made that although you need to know a lot, you also need to know what you do not know. A more reliable set of facts and narratives is known when information is collected from the edge of the organization.

Drawing on his previous book, Brafman opined that decentralized organizations (starfish-like) are at a decided advantage when compared with centralized (spider-like) organizations.

Using social science research methods, Dempsey and Brafman show how efforts to democratize content by changing from organizational views to humanization makes a narrative emotionally salient. Paraphrasing George S. Patton, the authors advise leaders to describe what to accomplish (mission command) but allow flexibility in how to do it. Effective leaders provide an ideology and inspire the followers, but then let go of message control.

Using the human brain as an organizational metaphor, the authors describe the cost of control, the effects of mistakes, and the value of “surprise
neurons.” The advantage value comes not from recognizing errors rather from diverse observers who provide “anomaly” data that do not conform to expected patterns.

In conclusion, Chapter 5 recognizes social science research and the power of belonging that contributes to identity, security, and order. Social exclusion, on the other hand, brings increased negative behaviors. The authors say, “The change in social fabric to today’s society has made belongingness a little more complicated, especially for young people, whose experiences are dominated by the digital world” (p. 72). They recognize new social networks and that “we must commit…to ensuring that people feel a sense of belonging in our organization” (p. 78).

Implications from Harnessing The Power of Inclusion

- Personalized belonging brings a sense of power and purpose, and consequently, organizations become more active.
- Communicated purpose, shared goals, community, perceived order, and predictability increase inclusion.
- Transform research findings into compelling narratives.
- Connecting evidence-based practice increases the impact when connected through community leaders using a decentralized approach.

Applications from Harnessing The Power of Inclusion

- A sense of belonging is crucial to organizational sustainability.
- Benefits come from increasing effort to include members from the “edge.”
- Communicating through multiple channels brings the cause to the broader community.
- Using peripheral vision to gather data from the edge enhances the situational awareness of leaders.

The Inclusive Leader

The heart of Dempsey and Brafman’s case for inclusion lies within the leader; a leader with more to do and less time to do it. Part 3 lays out six leadership principles that are foundational to inclusion and ultimately to success. In a complex, changing, and competing environment, leaders aspire for trust and confidence. To pass on confidence, Dempsey and Brafman advise to begin by revealing self, then promoting individual potential, and finally interconnecting within the team—large or small. Success or failure often hinges on actions that make people feel like they belong.

Dempsey opens with the importance of connecting effort with meaning. Attempts to “make it matter” requires explanations, encouragement, and inspiration. Imagination and listening are also fundamental skills. Dempsey and Brafman describe conditions of the leader as one who challenges assumptions and the status quo while accepting and connecting different thoughts and complexities. They warn of simplicity and that the first solution may not be the right answer.

Using a familiar 1871 classic, the Red Queen warns Alice that in Wonderland “to get somewhere else, you must run at least twice as fast as that.” Dempsey and Brafman contrast the 1871-2017 eras and underscore the need to develop a bias for action and to adapt and evolve quickly. They advise to include clarity of purpose, a unity of effort, shared power, constant communication, and trust. In short, to act, assess, and act again as you co-create context for the organization.

Analogizing Waze navigational software, the authors’ highlight the need for
shared information from the edge of the organization. “What the public wants” creates and sustains change. By relinquishing control, using an instinct for inclusion, and building collaboration and trust, leaders can shape and sustain powerful organizations. The choice between “winner-take-all” vs. “collaborative space” is similar to a philosophy of scarcity vs. abundance. Order and inclusion exist in tension and reduces the “arc of instability.” The goal is to increase organizational effectiveness and build a history of success. Part 3 closes with admonitions to listen, amplify, and include. Listening is a key to learning while amplification creates team expectations and inclusion empowers the membership. Using a football analogy, the authors advise to “go wide and deep.”

Implications from The Inclusive Leader
- Operating environments define how relationships differ.
- Six principles and a “Waze-like” navigational system set a framework for leaders in dynamic environments.
- Responsibilities begin with the leader, spill out to individuals, and finally permeate the organization.
- Professional societies have different hierarchical structures than military or academic organizations. However, inclusion is a common thread.
- Rather than autocratic or laissez-faire, radical inclusion is an intentional action by the leaders. Adopting a philosophy of abundance fits a global perspective.

Applications from The Inclusive Leader
Leadership can hinder organizational efforts, especially in global environments. Foreign countries have not enjoyed the legislation and appropriations like the U.S. for public education in agriculture nor extension programs. In fact, in many countries, school-based agricultural education exists minimally or not at all and non-formal education (training and visitation programs) has been privatized. Globally, then, the question arises regarding what federal agency can and should provide leadership for agricultural and extension education: education or agriculture. The answer, logically, is both. AIAEE can catalyze identifying and partnering with the appropriate leaders in agriculture and extension in providing direction and programming in support of domestic and international cooperation in agriculture and extension education. Inclusive leaders have experienced successes and failures and know what “right” looks like and what “wrong” looks like. They make it matter. Much like the scientific method, leaders find possible solutions and work cooperatively in finding the best fit rather than going with the first idea that arises. Determining the work and future of the organization hinges on listening, amplifying, and including others.

In Inclusion We Trust
Digital echo is a reoccurring and disturbing theme of the book. Dempsey and Brafman describe the echo “where information passes from individual to individual more quickly but in the process often becomes distorted” (p. xii). Two imperatives emerge; digital echo increases the need for inclusion, and leveraging inclusion gains better information and more effectively communicates the message. The authors’ prescription for decreasing echo is increasing trust and confidence. Trust is an essential element in ensuring greater knowledge and better outcomes. Dempsey’s advice is that “we are all scouts”—emissaries who provide critically, often disparate, facts and information to the organization. The organization relies on common metrics to measure progress and follows a pattern of learning, listening,
amplifying, and adapting. Repetition, re-emphasis, and reinforcement fill the book—perhaps as a stimulus for a response.

Chapter 14 matches negative forces—iniquities, intolerances, biases, and manipulation—against positive forces—integrity, empathy, collaboration, and accountability. Dempsey and Brafman advocate leadership be best viewed with peripheral vision—the ability to see objects and movement outside of the direct line of sight. Unsaid, the reciprocal of peripheral vision is tunnel vision—perhaps a more common phenomenon for self-serving quasi-leaders. The authors close with a rejoinder that leadership is more critical and more difficult today than before. Moreover, that inclusion is a radical imperative.

**Implications from “In Inclusion We Trust”**

- Sustainability depends on harvesting, validating, and sharing of information throughout the organization—from the core to the edge.
- Success may hinge on “what right looks like” but that inclusion is not as a “feel-good movement.” Rather, inclusion “has the power to change the world” (p. 168).
- Peripheral vision extends 200–220° horizontally from the line of sight. Collecting information from the edge is additive and contributory.

**Applications from “In Inclusion We Trust”**

Nearly three decades ago, the late Dr. Barnabas Dlamini, then Dean of the Faculty of Agriculture at the University of Swaziland, made it clear to a research team of agricultural economics and agricultural education professionals working at his institution. “Don’t tell us what to do; help us do what we have decided needs to be done.” The trust factor was an important one. Simply sharing what and how it is done in the U.S. is not satisfactory. Instead, include educators from both venues in deciding what is best for the local environment and provide inclusive leadership and planning in assisting the local entities in making needed progress. As Dempsey and Brafman conclude, the essence of leadership is building trust.

**Conclusions**

Leadership is a recurrent topic with an Amazon search revealing more than 30,000 titles from which to choose. Narrow the search to “organizational leadership” and the titles reduce to 6,000-plus. While Dempsey and Brafman’s 2017 *Radical Inclusion* will not likely outlast or outsell Sun Tzu’s *The Art of War* written in the 5th century, it is a remindful read. Tension exists between verifiable truths vs. foggy distortions and apathy. Moreover, a reminder that no one of us is as smart as all of us.

While AIAEE is celebrating its 35th year, JIAEE is celebrating its 25th anniversary, young and tiny when compared with many journals. During that quarter-century, dramatic changes have occurred in our operating environment—climate, demographics, foods, health, politics, population, social media, technologies, and terrorism. Nevertheless, “in the absence of verifiable truth, competing narratives will vie for allegiance,” and fear of losing control promotes exclusion (p. 14).

Dempsey and Brafman stress the need for leaders at all levels to cultivate an environment of participation in which members “need not be a part of every meeting, but are you enabling them to participate in furthering the organization’s overall goals” (p. 51)? A radical imperative for AIAEE: communicate the purpose, inspire participation, and stimulate personalization. A radical imperative for leaders: Read the book. Analyze the narratives. Act.
An Analysis of Evaluation Methods Implemented in Studies Published in the Journal of International Agricultural and Extension Education from 1994 to 2018: A 25 Year Review

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Abstract
Evaluation has been identified as a critical pathway to meet the grand challenges facing agriculture to feed the world. Understanding evaluation models and practices used in articles published in the Journal of International Agricultural and Extension Education (JIAEE) allowed us to identify areas of focus, need, and improvement. This content analysis assessed JIAEE articles published from 1994 to 2018 for evaluation methods implemented according to characteristics outlined by Stufflebeam and Coryn (2014). This study initially identified 384 possible articles for consideration. Upon further assessment, 81 articles were identified as maintaining characteristics appropriate for review. Of these articles, the majority (70%) did not specifically identify an evaluation approach, even though 21% of all feature articles published over the past 25 years can be considered an evaluation. Few published evaluation articles specifically identified an evaluation approach; rather, the majority merely described the methods without using evaluation terminology, and the majority of the examined articles did not substantially cite evaluation literature (53%). Additionally, the majority of published evaluation articles were quantitative (56%). Researchers publishing in JIAEE should be assured that qualitative and mixed method evaluation studies are also acceptable. Evaluation studies focused on Stufflebeam and Coryn’s evaluation criteria of feasibility, safety, equity, and probity should be encouraged. Additionally, workshops or training opportunities to advance understanding in evaluation processes and procedures may be valuable.

Keywords: Evaluation, Evaluation Methods, Content Analysis, JIAEE
**Introduction**

Evaluation is a critical part of program development as it enables the improvement of both processes and products within international development initiatives. Multiple methods of evaluation have been used to determine both people and programmatic needs and abilities. These have largely been in the areas of human capacity, programmatic needs assessments, program capacity and impact, and to better understand programs through planning, design, and implementation assessments (Baker, Bassey, Jimoh, & Akande, 2015; Edgar, 2010; Ghimire, Suvedi, Kaplowitz, Richardson, 2017; Harder, Ganput, Moore, Strong, & Lindner, 2013; Jayaratne, Taylor, Edwards, Cartmell, Watters, & Henneberry, 2017; Kanté, Edwards, & Blackwell, 2013; Kelsey, 2018; Meagy, Rashid, Barker, & Islam, 2013). While there are many different models that can be used to guide an evaluation, some methods may be more appropriate than others. Many researchers involved with the Association of International Agricultural and Extension Education (AIAEE) have utilized various evaluation methods. Published evaluation studies focused on approaches such as participatory evaluation (Chouinard, 2013), influences such as pressure on evaluators (Pleger, Sager, Morris, Meyer, & Stockmann, 2017), and settings such as in developing countries (Hansen, Klejinstrup, & Andersen, 2013) can facilitate the design of effective evaluations. As the discipline prepares to celebrate 25 years of knowledge dissemination for the *Journal of International Agricultural Extension Education*, it is appropriate that we analyze our evaluation methods for published articles during that time. This analysis allows us to both celebrate our efforts and identify areas of improvement for the future.

Fitzpatrick, Sanders, and Worthen (2011) noted that evaluation’s role was to improve an organization’s performance by “instilling new ways of thinking” (p. 14). Recently, the Association for Public and Land-grant Universities (APLU), an association of more than 230 public research universities and systems in the United States, Canada, and Mexico and is dedicated to strengthening and advancing the work of public universities, developed a Challenge of Change Commission. This Commission identified seven grand challenges that focused on availability, access, and utilization to find better measures to feed the world by 2050 (APLU, Challenge for Change, 2017). Evaluation and assessment were outlined as a critical pathway to meet the demands of these challenges. There has been an increase in funding calls and focus to add social scientists to teams to determine critical needs. The grand challenges facing our world today call for an increased focus on human capacity and program assessment. It is a critical time for social scientists to be at the table, because “these gaps need to be identified, prioritized, and shared to drive the next generation of food and nutrition security discovery, engagement, and learning. Then, the necessary work must occur to help funders, universities, and communities work together to tackle the gaps and share the most successful models” (APLU, Challenge for Change, p. 107).

Using social science methods to collect and analyze data about overall program implementation, fidelity, and performance can assist with better understanding of areas of improvement (Fitzpatrick et al., 2011). “Agricultural extension services exist throughout the world with the primary function to facilitate learning and extend new knowledge and technologies in non-formal educational settings to improve agricultural productivity and increase farmers’ incomes” (Suvedi & Vander Stoep, 2016, p. 1).
At the annual conference in 2001, Radhakrishna identified problems, challenges, and strategies for evaluating international agricultural and extension projects. Among his findings were 11 specific problems that ranged from lack of time to limited availability of project data. He also noted four models that were useful to evaluate international agricultural and extension education programs. Those models were: (a) Francine Jacob’s evaluation model, (b) Robert Stake’s evaluation framework, (c) Rockwell and Bennett’s Targeting Outcomes of Program (TOPs) model, and (d) Kirkpatrick’s evaluation framework.

Analyzing a publications’ literature adds to understanding of where researchers contributing to JIAEE are securing their international agriculture and extension education information and provides insight on quality and depth. In 2010, Edgar completed an analysis of JIAEE citations from 1997 to 2006 that revealed citation trends. Additionally, Edgar, Rutherford, and Briers (2008) noted that analyzing key areas of research in journals allows for increased understanding on capacity and needs to expand programmatic areas and research and has the potential to identify patterns of publication.

**Conceptual Framework**

The conceptual framework was based upon defining evaluation and specific approaches associated with the evaluation process. Distinguishing between research and evaluation allowed us to set the stage for the context used in this study. Stufflebeam and Coryn (2014) defined evaluation as “the systematic process of delineating, obtaining, reporting and applying descriptive and judgmental information about some object’s merits, worth, probity, feasibility, safety, significance, or equity. The result of an evaluation process is an evaluation as product” (p. 696). Davidson (2004) defined evaluation as “the determination of something’s quality, value, or importance or the product of such a determination” (Davidson, 2004, p. 240). Davidson (2004) further explained that research focuses on explaining “what’s so” and evaluation answers, “so what” and discussed merit as quality or intrinsic value of something. Worth is defined as the value of something to an individual, an organization, an institution, or collective. The difference of purpose was used to distinguish between research and evaluation by Boulmetis and Dutwin (2014). They identified that evaluation results provide feedback to stakeholders for program or project improvement while research explains the linkages between the observed phenomena and knowledge base on the phenomena to the audience of the professional in the field.

Stufflebeam and Coryn (2014) identified eight value criteria that would indicate an evaluation: merit or quality, worth, need, probity, feasibility, safety, significance, and equity. Stufflebeam and Coryn (2014) identified 23 approaches for evaluation. The authors categorized these into two categories: six pseudo-evaluations and 17 legitimate approaches. These approaches were calcified based on nine descriptors: (a) advance organizers—that is, the main cues that evaluators use to set up a study; (b) main purposes served; (c) sources of questions addressed; (d) questions that are characteristic of the approach; (e) methods typically employed; (f) pioneers in conceptualizing the approach plus others who have extended its development and use; (g) key considerations in determining when to use the approach; (h) strengths of the approach; and (i) weaknesses of the approach (Stufflebeam & Coryn, 2014). The authors shared that different approaches would be appropriate for different purposes.
Figure 1. Conceptual framework for review of JIAEE articles based upon Stufflebeam and Coryn (2014).
Purpose

The purpose of this study was to analyze the use of evaluation methods implemented in studies published in the *Journal of International Agricultural and Extension Education (JIAEE)* from spring 1994 to May 2018. Questions that guided the study included:

(a) How prevalent is the publishing of evaluation results in *JIAEE*?
(b) How and to what extent do *JIAEE* authors use evaluation approaches to frame their methods?
(c) How do *JIAEE* authors use evaluation literature to guide their studies?

Methods

Content analysis was initially used in the 1930s and 40s as a quantitative measure, involving tabulating the frequencies of content units (Berelson, 1952). Over time, researchers gained an appreciation for qualitative approaches within the method to interpret meaning from the content (Hsieh & Shannon, 2005). Content analysis can be described as a research method that uses keyword searches of narrative material to determine the presence of certain words or themes. Cavanagh (1997) described the method as a flexible way to analyze text data. Several authors in our profession have used similar approaches to determine factors for what we teach and publish (Acker & Grieshop, 2004; Edgar, 2010; Kelsey, 2018). The researchers for this study used a systematic approach to search and locate articles within the *JIAEE* over the past 25 years.

We adopted Stufflebeam and Coryn’s (2014) definition of evaluation which is “the systematic process of delineating, obtaining, reporting, and applying descriptive and judgmental information about some object’s merit, worth, probity, feasibility, safety, significance, equity, sustainability, and/or transportability. The result of an evaluation process is usually a tangible product, especially a printed, summative evaluation report” (p. 696). Following this definition, eight criteria were considered to categorize an article as an evaluation study. The eight criteria included merit, worth, need, probity, feasibility, safety, significance, and equity.

Based upon evaluation literature, three checklists were created to guide article selection: differences between research and evaluation, defining evaluation, and evaluation approaches. The checklist created to facilitate understanding of the difference between research and evaluation articulated the fundamental differences between the two (Boulmetis & Dutwin, 2014). The checklist related to defining evaluation was created to enable clear understanding of the definition of an evaluation by articulating the eight criteria required to be classified as an evaluation (Stufflebeam & Coryn, 2014). Finally, the checklist created based on the 23 approaches identified by Stufflebeam and Coryn (2014) provided definitions and characteristics of each approach. These checklists were peer reviewed and then used as a tool to evaluate each article using consistent descriptions.

Prior to initiating the study, we conducted an initial screening of *JIAEE* articles to verify if the research was plausible. We used the keyword “evaluation” to search the journal and we located 55 articles that represented the most visible evaluation studies. We then placed them into a spreadsheet containing article title and lead author. We randomly pulled six of these to test the two-stage screening checklist and data collection sheet. The researchers used emic perspective as evaluation professionals to review each article by what was evaluated, what model or approach was used, and the reason for inclusion of the model for the evaluative study. For the second stage, we identified...
and matched the evaluation model or approach with the criteria identified in the framework, providing our justification for the match. This initial screening revealed that most studies do not articulate a named evaluation approach; however, there were enough evaluation studies to justify our research.

The initial data collection recorded 435 entries in *JIAEE* from spring 1994 to May 2018. Article screening took place in three phases (see Figure 1). First, initial screening excluded certain articles. Book reviews, commentaries, conference papers, seminal articles, and tools of the profession were excluded from the sample. The summer issues of *JIAEE* comprise conference articles, therefore summer issues were not counted as part of the sample. However, an exception was made for summer issues that had feature articles. For instance, the feature articles in the summer 2005 issue were counted. All remaining feature articles (articles that undergo double blind and peer review process) were inputted into a spreadsheet, and included year, volume, number, and title. There were 384 feature articles, with one being removed due to removal from website. Second, the 383 articles were reviewed by looking at the purpose and abstract of the article to identify whether the article met the definition of an evaluation, following the guide sheet created earlier. This resulted in 125 yes; 49 maybe, and 209 no, in regard to whether we believed it was an evaluation. Third, the 125 articles deemed “yes” were then reviewed in their entirety. We read through the entire article and identified characteristics of the evaluation based upon the eight characteristics (Stufflebeam & Coryn, 2014) and classified them accordingly. Articles were disqualified if we were unable to understand the evaluation approach (e.g., study of qualifications without identifying a standard, a needs assessment without a defensible purpose). This resulted in 81 selected articles. For each of the 81 articles, we specifically considered the methods, findings, conclusions, discussion, and recommendations to identify or assign an evaluation approach using the guide sheet developed outlining the 23 approaches. An additional approach (i.e., Kirkpatrick’s Evaluation Model) was added based upon email correspondence with Coryn (18th September 2018). Of the 81 selected articles, only 24 articles specifically named an evaluation approach. The remaining 57 articles were assigned an evaluation approach based upon the description of the process they followed in the findings and overall purpose of the study. We then analyzed the articles containing a named approach (24 articles) and assigned each article the approach that represented that method based on the contextual framework. Further, the methods of each article were analyzed to determine if evaluation literature was used to frame the study.
Findings

**How prevalent is the publishing of evaluation results in JIAEE?**

Eighty-one out of 383 feature articles (21%) met the definition for an evaluation and were categorized into an evaluation approach based upon our conceptual framework. Analysis of these articles considering the eight evaluation characteristics revealed that very little attention is being paid to several areas of the evaluation process. Aspects including equity, feasibility, safety, and probity were not widely addressed in the articles examined. Most of the published evaluations were focused on significance and merit. Most of the articles (62; 77%) reflected findings focused on program development and improvement.

**How and to what extent do JIAEE authors use evaluation approaches or models to frame their methods?**

Of the 81 articles examined, only 24 articles (30%) specifically identified an evaluation approach (see Table 1). The remaining articles (57) described the methods they followed which allowed us to categorize the approach based upon the conceptual framework (see Table 2). Most of the categorized articles (74 out of 81) used approaches that Stufflebeam and Coryn (2014) classified as the strongest program evaluation approaches. Among the 81 examined articles, 13 were identified as qualitative, 45 were identified as quantitative, and 23 were identified as mixed methods.
Table 1

Evaluation Approaches Identified in *JIAEE* Articles Published from Spring 1994 to May 2018

<table>
<thead>
<tr>
<th>Evaluation approach</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>A system for monitoring and evaluating agricultural extension projects by Cernea and Tepping (1977)</td>
<td>1</td>
</tr>
<tr>
<td>Bennett’s hierarchy for program evaluation (Bennett, 1976)</td>
<td>2</td>
</tr>
<tr>
<td>Bennett’s hierarchy for program evaluation (Bennett, 1976) and retrospective program impact (Davis, 2003).</td>
<td>1</td>
</tr>
<tr>
<td>Borich (1980) needs assessment model</td>
<td>4</td>
</tr>
<tr>
<td>Context, Input, Process, and Product (CIPP)</td>
<td>1</td>
</tr>
<tr>
<td>Case study as an evaluation approach</td>
<td>1</td>
</tr>
<tr>
<td>Davies (1973) conceptual model for training effectiveness</td>
<td>1</td>
</tr>
<tr>
<td>Expertise-oriented evaluation</td>
<td>1</td>
</tr>
<tr>
<td>Formative evaluation</td>
<td>2</td>
</tr>
<tr>
<td>Kirkpatrick’s (1994) evaluation framework</td>
<td>2</td>
</tr>
<tr>
<td>Participatory action research as an evaluation approach</td>
<td>1</td>
</tr>
<tr>
<td>Quasi-experimental study as an evaluation approach</td>
<td>1</td>
</tr>
<tr>
<td>SWOT analysis</td>
<td>3</td>
</tr>
<tr>
<td>Systems-theoretical approach (Rice &amp; Foote, 2001)</td>
<td>1</td>
</tr>
<tr>
<td>Targeting outcomes of program (TOP) model (Bennett &amp; Rockwell, 1995)</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
</tr>
</tbody>
</table>
Table 2

Assigned Evaluation Approaches based on Stufflebeam and Coryn’s (2014) Classification

<table>
<thead>
<tr>
<th>Legitimate Approaches</th>
<th>a.Named</th>
<th>b.Assigned</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accreditation and Certification</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Connoisseurship and criticism</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Constructivist evaluation c</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Consumer oriented studies c</td>
<td>0</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Cost studies</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Decision and accountability–oriented studies CIPP c</td>
<td>5</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Deliberative Democratic Evaluation</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Experimental and quasi-experimental studies c</td>
<td>3</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Meta-analysis</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Objectives-based studies c</td>
<td>0</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Outcome evaluation as value added assessment c</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Participatory Evaluation</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Responsive or Stakeholder-Centered Evaluation c</td>
<td>6</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>The success case method c</td>
<td>3</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Theory based evaluation</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Transformative Evaluation</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Utilization-Focused Evaluation c</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Kirkpatrick Model</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>57</td>
<td>81</td>
</tr>
</tbody>
</table>

a“Named” column represents the articles which included approaches named by JIAEE authors within their articles. b“Assigned” column represents articles which did not include an identified approach but we were able to assign an evaluation approach based upon the authors’ description. cStufflebeam and Coryn (2014) classified nine approaches as the strongest program evaluation approaches.

How do JIAEE authors use evaluation literature to guide their studies?

Of the 81 articles examined, only 47% (38 articles) referenced evaluation literature. Seventeen percent (14 articles) of the articles used completed evaluation studies as a guide for their study without referencing a model.

Conclusions, Implications, and Recommendations

Our examination of the evaluation methods implemented in studies published in JIAEE over the past 25 years provides insight into the prevalence of evaluation studies as well as the approaches or models used. Findings revealed that evaluations are published in JIAEE to a moderate degree; 21% of the feature articles published over the past 25 years can be considered an evaluation. A limited number of these published evaluations specifically identified an evaluation approach, rather the majority merely described the methods without using evaluation terminology. Further, most of the examined articles did not substantially cite evaluation literature. This observation confirmed the claim by Miller (2010).
indicating that evaluators often did not clearly report connections between select evaluation theories and their practices.

Based upon findings, we concluded there is a need for increased awareness of evaluation literature among authors contributing to JIAEE. The review of articles revealed that few authors used published evaluation research to support their methods or results. Thus, an opportunity to use literature published in refereed journals such as the American Journal of Evaluation was missed by authors. Given that less than half of the published articles examined referenced evaluation literature, workshops related to conducting and publishing evaluations would be valuable. The addition of evaluation literature strengthens and clarifies methods, which in turn increases the understanding of the reader. Authors should be encouraged to use models in published evaluation literature and cite them accordingly rather than using a previously conducted evaluation as the basis for their approach.

Stufflebeam and Shinkfield (2007) noted, “... if evaluators do not apply evaluation theory ... then it is important to ask why they do not. Perhaps the approaches are not sufficiently articulated for general use, or the practitioners are not competent to carry them out, or the approaches lack convincing evidence that their use produces the needed evaluation results” (p. 62). Few evaluation models were specifically noted by authors. The Borich (1980) needs assessment model was popular among authors with four separate studies using this model. Of the four models noted as useful by Radhakrishna (2001), we only identified two of those models (i.e., Kirkpatrick’s model and Targeting Outcomes of Program (TOPs) model) articulated within the 81 articles examined. However, we recognize it is possible that elements of these models may be represented without the models being identified. Additional examination of the methods of each article would be needed in order to make that determination.

However, it is notable that models were only specifically identified in 24 of the 81 articles examined. Awareness of the diverse models that exist would add to the capacity of authors publishing in JIAEE. The infrequency of authors articulating evaluation models used in published evaluations indicate an opportunity for professional development related to evaluation tools that may be useful for agricultural extension education. It is possible that authors are unaware of evaluation literature that could benefit their evaluation efforts. It is also possible that authors are hesitant to use terms related to evaluation and select terms more closely associated with research for fear of rejection by reviewers.

Evaluation findings are usually program specific and offer guidance for others with the caution of not generalizing findings to a population. Authors should be reminded to take additional precaution in avoiding the generalization of evaluation findings. Further, given that findings revealed a slant toward quantitative methods, potential authors should be assured that qualitative and mixed methods are also acceptable. In addition, findings reveal an opportunity to broaden the focus of the evaluation processes to include additional evaluation characteristics beyond significance and merit. Within the context of agricultural extension and education, studies focused on feasibility, safety, equity, and probity across contexts would be valuable.

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The Future of Extension: A Network Emergence Perspective from the Case of the Global Forum for Rural Advisory Services

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Abstract
Extension, as a socially-based institution, must constantly evolve with society. This case study on the Global Forum for Rural Advisory Services uses social network theory to add to the literature on network emergence in the context of extension. The researchers explored how an extension network evolved in response to global agricultural issues. The use of a qualitative content analysis of the eight themes of the annual meeting of the network showed how the Forum changed in response to current events and regional needs. The Forum first built and consolidated a network of global extension members and then moved to an outward focus in terms of relations within and outside of extension. Analysis revealed the network first focused on simple, basic themes of interest to the knowledge network, and slowly expanded to wider and more complex topics that involved a richer network of actors. This case implies that extension institutions, which are on the front line of trends stemming from societal shifts, are thus positioned to play a crucial role in technology transfer and sensitization of global agricultural issues.

Keywords: Extension network, social learning, network emergence
Introduction

The future of global extension is unknowable; however, one might argue the extension ethos has always been to evolve consistent with the needs of the clientele that it is intended to serve, known or not. Therefore, to ensure ongoing relevance, extension must be nimble and proactive in addressing issues facing agriculture rather than reactive. One thing extension has always been good at is establishing networks and building strong relationships at the local and national level. However, the need to work across country and even continental borders has become even more important as the world shifts to one driven by global issues such as regulation of imports/exports, an agricultural workforce that is impacted by immigration policy, climate change, and the transfer of invasive species. Extension is logically connected to societal shifts (Davis & Sulaiman, 2014). While the future of extension is unknowable, what is readily observable in society are shifts that will inevitably affect the structure and delivery of extension programming in the future (Lamm, Lamm, Davis, & Swaroop, 2017) and the increased need for a global extension system that is connected through networks.

Retrospectively, predictions for the future are notoriously inaccurate. Drawing from chaos theory, there are simply too many variables to confidently prognosticate the specifics (Levy, 1994). Nevertheless, there are observable patterns of innovation and technology leading to societal shifts (Rogers, 2003). For example, humans have always had a need for transportation. First by foot, then by animal, then facilitated by the invention of the wheel, the improvement of animal conveyance apparatus (carts, etc.), and more recently automobiles, airplanes, and even craft capable of travelling to the depths of oceans and the far reaches of the solar system.

Communication systems followed a similar pattern. Starting with individual-to-individual verbal utterances or gesturing, pictorial representations, distance-mediated (signal fires, etc.), postal letters delivered by person, telegraphs conveyed over transmission wires through a series of dots and dashes, voice capable transmission over wire, and more recently data transmission in the form of text, audio, and video through either wired or wireless transmission. The trend across examples is the scale, speed, and density with which the innovation evolved and corresponding societal shifts (Rogers, 2003).

Technology has allowed society to become more connected and more integrated than ever before. An airplane flight that takes hours has replaced a journey that might have taken days by automobile or months on foot. Similarly, a telephone call can connect individuals that may be geographically located on opposite sides of the world in a fraction of a second. Humans have never had more opportunities to connect with each other than they do today and the speed with which the connections are made would be almost unimaginable a few decades ago (Economy, 2015).

This is the world in which extension finds itself: A world in which an increasingly-connected population is able to access more information through their mobile smart phones than would be possible in a lifetime of accumulation in the past. To remain relevant to society extension must evolve according to these trends (Davis & Sulaiman, 2014). In the past extension personnel may have been a single point of contact for knowledge and technology transfer for their clientele. Today extensionists represent only one of many potential sources of information for clientele (Lindner & Dolly, 2013). Information sources range from internet-based material in the form of Google searches and
YouTube videos to training provided by private industry. The proliferation and democratization of information has fundamentally altered the role of extension (Strong, Rowntree, Thurlow, & Raven, 2015).

Historically the flow of information was linear, traveling from researcher or technology creator to clientele, with extensionists serving as mediators between the two. The structure was hierarchical where interactions between actors were predictable. Lubell and Niles (2014) describe how the United States Cooperative Extension has evolved from a top-down approach to today’s knowledge systems, with many actors and different learning pathways.

We go beyond Lubell and Niles’ description of agricultural knowledge systems that consist of all the actors and their relationships in creating knowledge (2014) to the broader agricultural innovation systems approach (Spielman, 2002). Agricultural innovation system proponents also recognize many different sources of knowledge but emphasize the policies that influence interactions and the fact that innovation goes beyond technology to include process, institutional, and social innovations.

In this new paradigm there are no clear protocols for the dissemination of technology or information (e.g. Molnar & Jolly, 1988). Researchers can now publish results on the Internet and make them available to anyone, anywhere immediately. Clientele can interact with information directly and independently (Strong et al., 2015). However, despite the rise of available information and connectedness, there has been a corresponding rise in information overload and inaccurate and false information distribution. Clientele are becoming more overwhelmed by the volume of information they are exposed to and more distrusting of what information they consume (Temming, 2018).

These are the countervailing trends upon which extension is best positioned to address. A known, trusted source of information provided in an accessible manner is what extensionists have been doing for decades (Davis & Sulaiman, 2014). The institutional knowledge associated with this role positions extension to continue to serve as a key actor in the technology-to-clientele transfer while adapting and evolving according to contemporary societal shifts (Davis & Sulaiman, 2014; Strong et al., 2015).

Consistent with technology trends and societal shifts, extension must adapt to remain relevant (Henning, Buchholz, Steele, & Ramaswamy, 2014). Although the mandate for evolution and adaption is clear based on society, there is a limited literature base upon which to examine network emergence within an extension context. This work will address this gap by focusing on network emergence of the Global Forum for Rural Advisory Services (GFRAS). Using GFRAS as a case, the authors employ network emergence to examine how the organization first connected global extension actors and slowly began to expand its focus to relationships outside of extension.

**Conceptual Framework**

The conceptual framework for this study was based on social network theory proposed by Borgatti, Mehra, Brass, and Labianca (2009) and in particular a focus on network emergence.

**Social Network Theory**

Humans are social creatures (e.g. Deci & Ryan, 2000) and the interactions between self and others is a fundamental characteristic of the human experience (Bass, 2008). Social networks are a natural extension of this common and fundamental
experience; specifically, they have been described as “a way of thinking about social systems that focus our attention on the relationships among the entities that make up the system” (Borgatti, Everett, & Johnson, 2013, p. 1). From this perspective social network theory provides a framework within which to analyze social relationships, dynamics, and emergence (Borgatti et al., 2009).

Due to the inherent complexity of human nature and social interactions, social network theory has been applied under several conditions to elucidate the phenomenon of interest (Borgatti et al., 2009). Within the literature there are a variety of social network research examples including small group development (Johnson, Boster, & Lawrence, 2003), relationships among funding agencies in a sample of Biological Science educators (Lamm & Lamm, 2017), and the emergence and effectiveness of leadership networks in teams (Scott, Jiang, Wildman, & Griffith, 2017). Also important are social learning (Borgatti & Halgin, 2011) and the “strength of weak ties” (Granovetter, 1973), or the fact that boundary-spanning relationships are important to tap nonredundant sources of knowledge (Lubell & Niles, 2014).

The role of networks has also been examined from an internationalization perspective. Specifically, using a qualitative case study approach Francioni, Vissak, and Musso (2017) found “the relevance of personal network relationships as a factor stimulating and supporting international market development” (p. 18). The role of external actors beyond the individual were critical to expansion into new international markets.

Using a quantitative social network analysis approach Chrobot-Mason, Gerbasi, and Cullen-Lester (2016) analyzed the role of organizational identity as a predictor of leadership identification. In particular they found “individuals who identify strongly with their organization and team are more likely to see others as sources of direction, alignment, and commitment” (p. 307). The emergence of network identity, proxied by organization and team identification, was a significant predictor of network member behavior. These results are consistent with the observations of Kogut (2000):

> Networks are more than just relationships that govern the diffusion of innovations and norms, or explain the variability of access to information across competing firms. Because they are the outcome of generative rules of coordination, networks constitute capabilities that augment the value of firms. (p. 423)

Consistent amongst much of the social network literature is the acknowledgment of one of the core tenets of social network theory, specifically a focus on the interactions between actors within the network, not on individual actors in isolation. The interactions are important to recognize as collectively they represent the network, and the network in turn has potential value and contribution above and beyond the individual level (Kogut, 2000).

**Purpose and Objectives**

The purpose of this study was to use the Global Forum for Rural Advisory Services (GFRAS) as a case with which to examine network emergence and its perceived importance to the future of extension on a global scale. The objectives of the study were to (a) determine how GFRAS evolved to address global agricultural issues of concern, (b) determine how GFRAS interacted with and connected extension actors from around the world to address issues of global concern and (c) describe how GFRAS expanded its focus to relationships outside of extension to ensure its relevance and ability to remain nimble.
Methods

A case study approach was used to reach the objectives of the study. A content analysis of the themes chosen and detailed notes of record from the annual GFRAS meetings was conducted to identify what issues were being addressed, the actors present and interested in the discussion, and the resulting outcomes related to building networks and communities of practice within extension and beyond. Qualitative methods were used to develop an in-depth description of the factors explaining the past and present state of GFRAS, its role connecting global extension actors, and the internal and external networks and partnerships that developed through the growth of the GFRAS organization (Merriam, 1998). It is important to recognize that while these methods provide an in-depth view of the phenomenon, they lack breadth of the entire environment the organization was working within, and therefore, should be used to gain insight into the specific situation rather than being generalized (Hatch, 2002).

Since its inception, GFRAS has been hosting an annual meeting at different locations around the world. The meeting typically hosts 150 individuals from 30-60 countries representing all continents, with the exception of Antarctica. Since 2010 there have been eight annual GFRAS meetings located in Chile, Kenya, the Philippines, Germany, Argentina, Kyrgyzstan, Cameroon, and Australia. A ninth meeting will take place in South Korea. During these meetings there are opportunities for networking, presentations of latest research and innovative extension programs, roundtable discussions, plenary sessions with keynote speakers, and celebrations of success and unity across the global extension system. Detailed notes are taken by the GFRAS organization and volunteers throughout the exchange. The notes are aggregated at the conclusion of each meeting, including conclusions and recommendations made based on the discussions. The summaries are available on the GFRAS website: www.g-fras.org. The meeting reports from all eight GFRAS meetings served as the data analyzed for this study.

Two coders familiar with the GFRAS organization conducted a content analysis of the annual meeting themes and notes of record. Using predetermined items of analysis, content analysis divides data into groups a priori (Lincoln & Guba, 1985). The predetermined items of analysis included identifying: (a) what was addressed at the GFRAS meetings to determine how the organization was responding to and driving change within the agricultural sector around global issues (e.g. women in agriculture, role of youth in agriculture, climate-smart agriculture), (b) how individuals connected through formal and informal communities of practice to establish networks within extension, and (c) how individuals connected through formal and informal communities of practice to establish networks outside of extension. The two coders discussed the themes, patterns, and relationships identified amongst themselves using the results to tell the story of the GFRAS organization as it grew over time. The aggregated results were then discussed with two additional researchers to establish trustworthiness through peer review (Lincoln & Guba, 1985).

Since “the researcher is the primary instrument for data collection and analysis in qualitative research” (Merriam & Tisdell, 2016, p. 16), we include subjectivity statements for the two coders. Coder One was involved in the establishment of GFRAS and was the chief executive officer of the GFRAS secretariat from 2010 to 2016. Coder One has no formal role in
GFRAS currently but still works in the international arena and collaborates closely with GFRAS. Coder One was educated in international extension and has researched extension for 14 years. Coder Two became involved with GFRAS in 2011, co-founded the GFRAS Consortium on Extension Education and Training, and currently serves as a Steering Committee member. Coder Two has worked as an extension educator and conducted research on the practice of extension for his entire career. This researcher has extensive experience in extension work at the frontline where there is interaction between farmers, other learners, and extension professionals in the developing country environment. Coder Two views GFRAS as the apex of providing extension and advisory services which, through a network mechanism, uniquely brings together extension public and private service providers in an effort to revitalize last-mile extension services (Khalid, 2018). One or both have attended each of the GFRAS annual meetings. While both researchers support GFRAS they believe that constructive criticism will help to improve the network.

Results

Analysis of the eight annual meetings tell a story of the evolution of a network in response to agricultural themes of the day and to its members. Table 1 shows the meeting themes, emerging topics and GFRAS response, and depicts how GFRAS matured from an inwardly-focused to an outwardly-focused network of extension to ensure its relevance and ability to remain nimble. While GFRAS uses the term rural advisory services, it is interchangeable with extension and we will use both terms.

We can see that over the first eight years (and into the ninth), the network focus evolved through the following steps:

1. Emancipating the network (2010)
2. Consolidating the network (2011)
3. Positioning the network (2012)
4. Broadening the network (2013)
7. Partnering the network (2018)

Table 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Theme of Annual Meeting, Emerging Topics and Networks</th>
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<tbody>
<tr>
<td>2010</td>
<td>Networks and evaluation; Evaluation Working Group; new regional networks in Asia, Africa, and Latin America</td>
</tr>
<tr>
<td>2011</td>
<td>Good practices in regional networking and current issues in rural advisory services; working groups on advocacy and capacity strengthening; regional network in Central Asia</td>
</tr>
<tr>
<td>2012</td>
<td>Role of Rural Advisory Services in Agricultural Innovation Systems; Gender Working Group; new network in South Asia</td>
</tr>
<tr>
<td>2013</td>
<td>Role of Private Sector and Producer Organizations in Rural Advisory Services; new regional networks in Europe and the Caribbean</td>
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<tr>
<td>2014</td>
<td>RAS Policies – Evidence and Practice</td>
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<tr>
<td>2015</td>
<td>Global Good Practices in RAS; new sub-regional networks in Asia and Africa</td>
</tr>
<tr>
<td>2016</td>
<td>The Role of Rural Advisory Services for Inclusive Agripreneurship; new sub-regional network in Europe</td>
</tr>
<tr>
<td>2017</td>
<td>Rural Advisory Services and Empowered Youth for Balanced Transformation in Rural and Urban Communities; Youth Working Group; new sub-regional network in Asia</td>
</tr>
<tr>
<td>2018</td>
<td>Addressing Challenges and Seizing Opportunities: Developing Effective Partnerships in RAS</td>
</tr>
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</table>
The network began with *emancipation* in 2010. The GFRAS network emerged out of the Neuchâtel Initiative, an informal group (initially composed mainly of donors) that met annually to discuss common frameworks for extension. GFRAS was formed as a more formal, inclusive, and proactive organization to support extension around the globe. The GFRAS founders felt extension was viewed globally as less important than research and was without its own identity, and thus there was initially focused on becoming an independent global institution to exchange knowledge and advocate for extension as a critical actor in agricultural development processes. Key topics at the first meeting and in subsequent activities included the importance of networks and evaluation of extension. Both regional and thematic communities of practice started to emerge. During the meeting, several new regional networks formed to represent Asia, Africa, and Latin America. The working groups served to facilitate GFRAS activities on a theme as well as to link actors and knowledge across regions; each working group was made up of members from different parts of the world. The most active during the first year was the Evaluation Working Group.

Year two (2011) began a process of *consolidation*; the meeting report stated that “Within one year, GFRAS has been consolidated and regional networks emerged. This has changed the institutional landscape of extension worldwide and shows that RAS has been emancipated by taking the future into their hands” (GFRAS, 2010, p. 9). GFRAS began to move from processes of institution building to focusing on issues of importance to extension at the time: policy advocacy, capacity strengthening, and a continued focus on evaluation. Working groups were started on capacity strengthening and policy. As a network, GFRAS was still very inward-focused with an emphasis on initiating and strengthening regional networks, such as the new one that emerged in Central Asia.

The third annual meeting (2012) was focused on *positioning* the network, with a theme on the role of advisory services within an agricultural innovation system. This led to recognition of the capacities needed to play a facilitating and brokering roles within the innovation system, and thus the position paper “The New Extensionist” was developed (Davis & Sulaiman, 2014; Sulaiman & Davis, 2012). The New Extensionist inspired the Consortium on Extension Education and Training and initial work on the New Extensionist Learning Kit (modules on key global extension competencies) in 2013. At the same time, the Global Good Practices Initiative emerged to share systematized learning on theoretical and practical extension know-how (Davis, et al., 2018). These initiatives gave GFRAS rallying points and helped shape a sense of identity.

On the network side at the 2012 annual meeting, focus moved beyond just regional networks to the newest building block of GFRAS: the country forums. Country forums are national-level platforms of all extension actors that facilitate prioritization, capacity strengthening, and advocacy. On the governance side, two more regional network representatives from Asia and Africa were added to the steering committee. The network also sought greater global visibility that year through participation in high-level global agricultural events: the Global Conference on Agricultural Research for Development and the Rio+20 Conference.

In 2013 the network further evolved and began to *broaden* beyond the public-sector dominance, with a focus on producer organizations and the private sector and their role in extension. This was the largest
meeting to date, with 160 participants, and a number of topics were discussed: strengthening farmer organizations, public-private partnerships, diversity, and inclusiveness. Agribusiness and extension’s role in supporting farming as a business also arose as a topic. Within the network, newly-emerging regional networks were struggling, and the topics of creating and sustaining an energetic network, network financing and sustainability were addressed. Two new networks emerged in Europe and the Caribbean.

The years 2014 and 2015 saw a focus on strengthening the network, mainly through work on policies, the Global Good Practices Initiative, and the Learning Kit. An online Policy Compendium was initiated under the guidance of the Policy Working Group in 2014. Sub-regional networks also began to emerge in Asia and Africa. In 2014 the national Argentine extension services, a member of the regional Latin American Rural Extension Network, co-funded the meeting. This began a trend of co-funding from the local and regional GFRAS partners. It continued in 2015 in Kyrgyzstan, when a local extension agency called RAS Chui Talas co-hosted the meeting. This happened again into 2016 when the Cameroonian government co-hosted the annual meeting.

In 2016 the GFRAS network began to further deepen as it started to focus on nontraditional topics (“agripreneurship”) and the inclusion of women, youth, and other marginalized groups in extension. This continued in 2017 with a continued focus on youth as well as on rural and urban communities. GFRAS reached out to the Australasia-Pacific Extension Network, a professional network of over 600 extension professionals, and held back-to-back meetings with some joint events. Another sub-regional network in Europe and one in Asia formed. The GFRAS Youth Working Group emerged.

The GFRAS network is now turning outward beyond the extension community and discussing partnering at its ninth annual meeting. Although the importance of partnership was discussed in the 2014 meeting, it became the major topic of the 2018 meeting. Thus as the network evolved, it evolved with regard to its membership and relational ties, and in response to topics of the day through communities of practice.

When GFRAS first started in 2010, it was very inward-focused and had few members, especially the key membership institutions: the regional networks. In 2011 there were four main regional networks with a few subnetworks that were not even all formally named (nine in total) (Figure 1). A certain number of networks existed before GFRAS began (e.g. IALB and PIEN).

By 2018 the network had included more of the developed-country networks in North America and Australasia as well as many more subnetworks (17 in total) (Figure 2). The network also changed from being driven and represented mainly by a few secretariat members to having greater visibility and roles within and among regional networks and through working group representatives. However, as the network continues to grow, it will face issues of how to include and balance the many different regional, institutional, and thematic interest groups in governance and activities of the network.

The GFRAS steering committee started out initially with Neuchâtel-associated members but slowly expanded to include more regional and thematic representatives. In 2010 and 2012 four additional members from Asia and Africa were brought on, and in 2015 an education representative was brought on. The network never managed to acquire representatives from the private sector or from farmers’
organizations, despite seats for these sectors on the steering committee and discussions on the topic each year.

**Figure 1.** GFRAS regional networks in 2011

Note. AFAAS = African Forum for Agricultural Advisory Services, APIRAS = Asia-Pacific Islands Rural Advisory Services, CACC = Central Asia and the Caucasuses Forum for Rural Advisory Services, IALB = International Academy for Agriculture and Home Economics Advisors, PIEN = Pacific Islands Extension Network, RELASER = Latin American Network for Rural Extension Services, RESCAR-AOC = West and Central Africa Network for Rural Advisory Services

Source: GFRAS, 2011

The GFRAS annual meeting themes addressing issues of global agricultural concern have also become more elaborate and sophisticated. They started with some basic issues: evaluation, policy advocacy, and capacity strengthening and have gone wider and deeper to include issues of agripreneurship, youth, and inclusion. As we can see from the annual meeting topics, however, the issue of “keeping networks hot” (annual meeting 2013) and finding working group members who will contribute time and energy without payment remains a pervasive one. Several topics never really worked very well: the topic of climate change never managed to take off with GFRAS, and the gender working group was dissolved in 2016 because there were no champions or resources to take it forward. Since its beginning, GFRAS also wrestled with the issue of limited resources and was initially criticized for starting up new institutions at the global, regional, and national level, which possibly duplicated the work of other forums within agriculture. GFRAS is entirely donor-dependent and is only now working on a sustainability strategy and business plan. It is also reviewing its governance (Khalid, 2018).

**Conclusions**

The objectives of the study were to (a) determine how GFRAS evolved to address global agricultural issues of concern, (b) determine how GFRAS interacted with and connected extension actors from around the world to address issues of global concern, and (c) describe how GFRAS expanded its focus to relationships outside of extension to ensure its relevance and ability to remain nimble. Content analysis of the eight network annual meetings revealed how GFRAS evolved to address global issues of concern and to first build and
connect its community before reaching out to the broader agricultural development community. To do so GFRAS moved from emancipation to consolidation, positioning, broadening, strengthening, deepening, and finally, partnering outside of the network.

GFRAS used its regional networks, country forums, and working groups to connect actors from around the world to address issues of global concern for extension. Through regional-level conferences and products of the working groups, issues such as youth in extension, gender, and the role of producer organizations in extension were addressed. GFRAS started out as a very inward-focused organization, apparently trying to prove itself in the world of agricultural development often dominated by research. After its own consolidation, GFRAS reached out to a wider range of stakeholders within and beyond extension.

While GFRAS has succeeded in many ways in addressing global issues of concern through building the network and connecting extension and non-extension actors, it has also faced challenges. These include the difficulty of attracting stakeholder groups such as farmer organizations and the private sector and the stiff competition for limited donor resources. The case of GFRAS shows that although there is potential for extension to serve as a mediator in the technology-to-clientele transfer, it is also necessary for extension to adapt to the conditions in which it exists. Specifically, hierarchical information flows are no longer the norm, having been replaced with an integrated network of actors and information. Accordingly, extension must adapt to such societal shifts and become less hierarchical and more networked and integrated.

This shift will require a more pluralistic approach, whereby the best technology and information is shared and proliferated amongst extensionists in acknowledgement of our shared global biome. There are no boundaries when it comes to resources such as water, soil, and air. The choices made at point A inevitably have an effect at point B. Extensionists are on the front line of these trends and are positioned to play a crucial role in technology transfer and sensitization of issues in global agriculture.

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Facing Boldly the Scourge of Praedial Larceny on Food Production in the Caribbean

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Abstract

Agricultural crimes or farm theft, commonly referred to as praedial larceny throughout the Caribbean, impacts significantly on food security through high levels of economic loss. This paper provides an overview of praedial larceny worldwide, losses in the Caribbean region and some evidence from Trinidad and Tobago where the situation is prevalent. The study was guided by the routine activities theory; identifying the types of criminal acts perpetrated, the level of risks posed to farmers and a special emphasis on the concept of guardianship. Data from group discussions and interviews conducted among farmers in two major areas in Trinidad representing different terrain (flat and hilly areas) and an acknowledged ‘hot spot’ area. The findings show that praedial larceny is no respecter of farmers, farming communities, type of crops, location or farmers’ economic circumstances. Finally, the paper reports on initiatives around the region and suggests other mechanisms which can be introduced to reduce the impact of praedial larceny on food security.

Keywords: Praedial larceny, Food security, Routine Activity Theory, Caribbean.
Introduction

"So sad...know the feeling thieves came into our garden about 3 weeks ago and stole all our plantains. Almost $4000 worth and stole from all the neighbors too...going to the police was a waste of time...how do u mark your produce? Farmers work too hard to help feed this country and in the end have no redress in these situations." (A distraught farmer, Camille Hardy from the Loop News, 2017).

Farm theft or praedial larceny refers to the theft of agricultural produce such as crops, livestock, and fisheries. This term also covers the theft of agricultural equipment such as spray cans, brush cutters, water pumps and other irrigation equipment. It can also be extended to the theft of agriculture inputs and secondary products such as feed and fodder. Praedial larceny threatens simultaneously the quality of life of a productive social class of citizens and the entire economic fabric of a society working towards food security and import substitution. It is often traumatizing and heart-breaking to the farmer who wakes up in the morning and discovers that their agricultural produce, equipment or livestock has been plundered and vandalized by thieves during the night. Moreover, there have been instances in which farmers have been brutally attacked, threatened, even killed by these unscrupulous predators while protecting the fruits of their financial investment.

Praedial larceny has been recognized by the highest level of leadership in the Caribbean as one of the most significant constraints to sustainable agricultural development in the region (Little 2011). The dimensions of praedial larceny can be classified under the categories of financial, physical, prevention and solutions (Little 2011). According to a 2010 survey carried out among Caribbean-region stakeholders, more than 90% agreed that praedial larceny was the single most discouraging aspect of agriculture and has become a disincentive to investment in the sector and a threat to livelihoods in farming and fishing communities (Little 2011). The report further indicated that on average, 82% of farmers and fisherfolk affected are commercial or semi-commercial producers. The report also revealed, that regionally 18% of the value of farm output is taken by thieves, resulting in the loss of over USD $321 million annually (CARICOM 2011). These losses may be small compared to developed countries; but nevertheless extremely worrisome. Worldwide losses are estimated as high as USD $5 billion on an annual basis (Swanson et al. 2000) and in some countries in Europe, the loss is between 6 and 18% of agricultural output.

A Caribbean Community study, CARICOM (2011), revealed the following estimated country losses: Trinidad and Tobago- losses of USD $22.6 million annually; Jamaica- losses in excess of USD $55 million annually; Belize- losses in excess of USD $300,000 annually; St. Vincent and the Grenadines- losses of USD $2.3 million annually and Bahamas losses to its marine fish industry of USD $16 million annually.

Because so much of this type of criminal activity remains unsolved and unpunished within the criminal justice system, agriculture on the whole has become a hazardous undertaking, woefully discouraging to both practising as well as aspiring farmers. Often overnight, several acres of high-priced commodities can be trucked away to be sold to middlemen, or directly to salesmen engaged in the retail business with no traceability (Isaac, Ganpat and Joseph 2017). Some farmers have even abandoned their entire enterprise due to heavy losses and the high cost paid for security. Such unscrupulous practices bring enormous profit to those engaged in this
sordid underworld of agricultural criminality, even as it spells economic ruin to the practising farmer; loss of livelihood and consequent inability to repay banks or credit unions.

While the issue of praedial larceny has not been studied to any large extent in the Caribbean, there is a growing body of academic studies conducted in America, Australia, Britain and Scotland which relate specifically to this rural crime. Such studies examined the changing ecology of agricultural crime, criminality and policing (Sugden 1999; Barclay 2001; Donnermeyer and Barclay 2005; Yarwood & Gardener 2005; Jones 2008; Spore 2009; Smith 2010; Little 2011; Donnermeyer & Scott 2013; Smith et al. 2013; Smith & McElwee 2013). These studies all show that farm theft is regarded as one of the major deterrents to agricultural production.

National and regional food security is at risk when farmers decide to leave the sector. Moreover, it is disastrous for farmers when high quality genetic breeds of livestock and crop varieties are stolen from breeding stations and agriculture research facilities and sold as food (FAO 2013). Stolen produce tainted with pesticides also have serious consequences for health.

**Theoretical framework**

As stated, little attention has been paid to the various factors influencing agricultural crimes in the Caribbean. However, other extra-regional studies have identified several factors that may contribute to, and encourage the growing spread of this crime. Cohen and Felson (1979) proposed the routine activity theory, one of the main theories of environmental criminology, and which is derived from an earlier work; Hawley (1950) theory of human ecology. The routine activity theory focuses on the temporal aspects of human behaviour in community environments. It includes perspectives such as situational crime prevention, and crime prevention through environmental re-design and it includes Newman’s (1972) notion of defensible space. This theory suggests that criminal offences are directly related to patterns of daily social interaction of both victims and offenders in time and space, which define in part the situation or context under which crime occurs (Cohen & Felson 1979). Tittle (2000); Felson (2002); Brantingham & Brantingham (1995) and Barclay et al. (2001), all describe the concept of place to the study of crime. They posit that in order for a crime to occur, three elements must converge; a motivated offender, the absence of a capable guardian, and the presence of a suitable target. Guardianship, a key component of this theory, includes anyone or any object (that is, forms of physical security) which can limit the chances of an offender committing a crime. As the authors explain, guardianship involves proactive environmental techniques such as target hardening, controlled access and effective surveillance in an attempt to dissuade offenders and reduce the opportunistic potential for the crime have praedial larceny. The routine activity theory holds that offenders are motivated to make their decisions based on the characteristics of the target. The choice of the target is based on its value, accessibility, visibility, concealability, removability and disposability (Bunei et al. 2013). Bursick and Grasmik (1993) discussed the work of Cohen & Felson (1979) and referred to guardianship as both a human (human presence or physical guardianship) and a non-human (for example, locks, alarms) phenomenon. Guardianship, in this regard revolves around is the availability of others who may prevent crimes by their mere presence or by offering assistance to ward off an attack. These can include neighbours, friends, relatives, dogs, passers-by, plus
physical measures for example locks, alarms, and remote cameras; all of which can act as substantial obstacles to offenders (Clarke & Felson 1993; Clarke 1995).

The routine activity theory stresses the importance of the exposure due to the isolation of property as a key ingredient in assessing vulnerability. Guardianship on a large farm where a great deal of the property is far from the location where the owner lives, therefore tends to be minimal and is not effective in reducing the vulnerability of property (Mears et al. 2007b). Agricultural crimes occur at specific places on agricultural operations and these places reflect the level of visibility of the property from a road by other people (opportunistic) as well as from the place where the farmer lives (guardianship).

In a later publication, Barclay & Donnermeyer (2011) noted that improvements in roads, the increasing cost of farm machinery and farm inputs, increasing reliance on transient or seasonal workers, and encroachment of urbanization into formerly rural and remote areas, have increased visibility, attractiveness and accessibility of farm properties. A study conducted in Kenya, found farm theft to be associated with high market integration and market availability (Omiti 2007). This phenomenon somehow resembles the situation in many Caribbean countries. From the perspective of routine activity theory, this represents an increase in the attractiveness of the target. Often, there are times when little or no interest in the legitimacy of the source of the produce based on market availability and as a result, there is an imbalance in their daily demand and supply of fresh food and the buyer is often clueless. According to the FAO (2013), one of the major drivers for farm theft in the Caribbean lies in maintaining the supplier/producer relationship, in which, reliability of supplies, freshness, smaller amounts not requiring storage and an acceptable price necessitates what can be referred to as an organized trade. Praedial larcenys’ most readily identified business feature is, therefore, the ability of the supplier to combine large volumes, timely delivery and a level of determination to ensure his delivery, that does not rule out the use of violence (FAO 2013). Hence, sometimes overnight, a farmer’s entire crop can be harvested to maintain this supplier/buyer relationship. Residing near major transportation routes would also increase a farmer’s vulnerability to farm theft because potential offenders can easily navigate between urban and rural areas.

Objectives of paper
The objectives of this study are to (i) discuss the impact of praedial larceny on farming in the Caribbean, (ii) present some evidence from one of the more affected countries and to recommend strategies to mitigate the scourge of praedial larceny in the region.

Methodology
While the discussion of this paper focusses on the Caribbean, evidence from studies done in Trinidad is presented to support discussions. Trinidad is used as the example because of the high impact of praedial larceny and for convenience; researchers’ inability to conduct studies in other major countries due to limited time and limited financial resources. To get a true assessment, as well as the emotional impact of praedial larceny on farmers, a personal and contextual approach was taken. A traditional group discussion method was used. This allowed for free, unrestricted opinions, perceptions and comments by the farmers. Three main discussion areas were explored: the extent of praedial larceny; the impact on farmers and recommendations to minimise its impact. The discussions were taped with the permission of the
participants. This was followed by the completion of a structured questionnaire, which comprised both closed-ended and open-ended questions.

The study was done in two contrasting farming communities. The Orange Grove estate which has over two hundred (200) new farming plots distributed to farmers in 2013, and is a well organised community of 5-50 acre plots of flat lands with good vehicular access and infrastructure. The other community is located in Maracas, St Joseph and farmers operate over a widely dispersed area on predominantly hilly terrain with little or no infrastructure, poor vehicular access, but very good access to smaller type agricultural thieves. 80 farmers were included in the study (Orange Grove = 50; Maracas =30).

Descriptive results are presented as and verbatim statements are provided to support findings.

Results

General description of communities

At the Orange Grove location farmers cultivated a variety of mixed vegetables such as pumpkin, cabbage, tomatoes, melongene, bodi, corn and hot peppers on 8-18 acres on open fields, and no livestock were reared. Half of the farmers had store rooms or shed built on the farm where some of the farm chemicals and equipment are kept. All of them however, admitted to keeping some sort of equipment or tools in the field; hidden in the drains or covered in a disguise of discarded roof sheets or empty fertilizer bags. There were two main reasons for which this was done. Firstly, in their opinion, it is simply not practical to move and replace equipment such as irrigation tubes and in some instances water pumps, depending on how far the water source is located. Secondly, they believe that when the thieves see a shed on the land, they automatically think there is something of value being protected within. From their practical experience, simply leaving small tools like hoes, spades and forks lying flat in the drains of the open field is most times more successful.

Farmers from the other farming community, Maracas, on the other hand cultivated mainly tree crops such as cocoa and citrus and food crops such as banana and plantain and root crops such as cassava and mixed vegetables such as string beans, pigeon peas and sweet peppers on a smaller scale; on acreages ranging from 3-5 acres in mainly open field production systems. Some of them even kept bees for honey production.

All of the farmers selected have store rooms or sheds built on the farm where some of the farm chemicals and equipment are kept. Because of the remoteness of some of the farms, it was quite difficult to transport the tools and equipment on a daily basis by foot, which is the only method of farm access by most of the farmers selected. All farms employed family labour and on rare occasions hired workers for odd jobs.

Existing farm security at both farming communities

Farmers in the Orange Grove farming community indicated that there was no existing farm security implemented since they were not convinced that traditional measures such as fences were effective. When asked about having watchmen in the field at night, it was the general consensus that in most instances, the watchmen are actually the main culprits. They indicated however that the praedial larceny squad, which occasionally patrolled the area at night in the Orange Grove area were in their opinion not always as effective as one would
think, since, it is possible for the thieves to simply hide in the field when they are alerted by the bright flashing lights of the passing patrol vehicles. Some farmers were also of the opinion that some of the security officers are possibly involved as well. Praedial larceny occurs in Orange Grove in a very unique manner. It is the firm view of the farmers that some of the main culprits are in fact actual farmers who cunningly steal produce and markets it as their own. The ingenuity and skill with which this crime is conducted perhaps is on par with white-collar crime. Traceability is almost impossible since it is difficult to prove to whom the produce belongs and the perpetrators, because they are ‘farmers’, have ease of access- even through the security gates.

Farmers in Maracas also did not believe that the praedial larceny squad was effective, as most of their farms were not easily accessible from the major roadways and even fences were impractical because of the hilly terrain. None of them employed watchmen but one farmer pointed out that the presence of bee hives on his farm served as a strong deterrent to thieves. Although the efficacy is unknown, one farmer suggested the use of foot patrols as a more practical option.

The incidence of praedial larceny at both farming communities

The praedial larceny problem in Orange Grove was described by the farmers as ‘serious’. The frequency for each farmer is at least once per year and all of the farmers have been affected in the past; losing produce, machinery, tools, equipment and even vehicles. Such was the case of one of the farmers present. One farmer in particular appeared clearly distraught as he related the incident: “Last year I lost my vehicle, a brand new 4x4 Ford Ranger. They came during the day, held me up at gunpoint, tied me up and stole the vehicle”.

The farmers stated that praedial larceny has always been a major problem and it occurs throughout the year, usually late evening or early morning. The general view of the group was that praedial larceny has in fact increased over the years. The reasons given to justify this notable increase was that “now there are more farmers, so there are more things to thief.” “The last known incident of praedial larceny occurred just last night”, lamented one farmer. “I lost approximately three thousand (3000) ochros”, he continued. Prior to this, was the loss of twelve (12) bags of papaya approximately three (3) months ago by another farmer. In this case however, the farmer actually caught the thieves and took them to the police station in his private vehicle. One farmer indicated that around harvest time they usually work until midnight on their field and return around 5 am in the morning. One morning, upon arrival to his field he realised that his entire crop was gone, “them thief and them does mark we and as soon as we leave they does come and steal we crop, I loss a whole crop of corn worth more than $30,000TTD in only a few hours”; I feel is them other farmers in the area”.

In terms of crop type vulnerability, the farmers are of the opinion that there is no significant difference and that all crops are equally at risk. It was recorded that numerous reports have previously been made to the police on praedial larceny. The farmers’ opinion however is that making police reports is a waste of their time. In the case of the twelve (12) bags of pawpaw mentioned before, the farmer stated that he was not convinced that any action would have been taken, had he not taken the thieves to the police station himself, in his own vehicle. He stated also that it was a risk
that he took and many farmers would not have taken that risk. The farmers claim also that when they go to make a report at the police station, they themselves are treated as criminals.

In Maracas, St. Joseph the farmers also described the problem as ‘serious’. The frequency was also at least once per year for each farmer and all of the farmers have been affected in the past, losing produce, machinery, tools and equipment. This group stated that there was no relationship between frequency or time of occurrence and market prices since there is a ready market for stolen agricultural produce. One farmer related a case in which he lost two (2) bags of sweet peppers. He immediately went to the culprit who he had suspected was responsible and was able to catch them in the process of packing out the sweet peppers for sale. He confronted the individual and then reported the matter to the police. The general view of the group is that praedial larceny has in fact increased over years. The reasons given to justify this observed increase was that there are now more thieves. One farmer indicated that not only do the perpetrators steal the produce, but now they are taking the entire plant. After establishing a field of citrus plants, he returned to meet only empty planting holes.

In addition to the usual thieves, the group also cited hunters as notable culprits, and perhaps the ones responsible for the empty planting holes. In terms of crop vulnerability, the farmers suggested bananas, both green and ripe are most susceptible, due to the fact that there is a ready market, and they are easy to sell since they are always in demand.

It was recorded that numerous reports have previously been made to the police on praedial larceny. The farmers’ opinion however is that making police reports is a waste of their time. There is seldom any response and if they do respond, the lack of traceability associated with agricultural crops means there is no evidence.

**Farmers’ recommendations**
Praedial larceny therefore, has potentially high, though undetermined, social costs to welfare in farming communities, livelihoods, and household food security. Farmers in both communities made the following recommendations; stiffer penalties for the crime, the praedial larceny squad should be more active, more frequent patrols at random times, more prayer, implement a wireless, battery operated camera systems and motion sensors for farmers at a subsidized price, formation of a farmers watch group, government to make incentive for security equipment available to all farmers regardless of tenancy status, make loans for purchase of security systems easier to access, implement modern technology including the creation of a photo database of the perpetrators so that they can be identified by both the police as well as farmers, GPS mapping of farmers plots for faster response by praedial larceny squad, solar powered camera systems and motion sensors be made available to farmers at a subsidised price, farmers to be encouraged to look out for each other more frequently, set up a camera system at the entrance gate to monitor vehicles entering and leaving the area.

**Discussion**
It seems evident that once the practice of praedial larceny can be engaged with impunity and offer rich rewards at the end, it will continue unabated for the foreseeable future across the Caribbean. The measures for a final solution must firstly come from national government interventions; legislating effective and realistic laws to address the problem and creating the mechanisms and agencies.
needed to effect a cure to this social ill. Technologies are actually available for adequate surveillance and intervention, and can be adapted to the needs and circumstances of a small Caribbean society and its small farm sector. The cost of such technologies will be regarded as prohibitive to the extent that government’s developmental policy disregards agriculture as an important revenue earner and fundamental to economic diversification. The modernization of farming must extend beyond tractors and harvesters, to proper fencing, electrification, cameras and armed guards. Small farms can hardly generate the resources to provide such equipment. Governmental agencies and government-sponsored regional co-operatives will be expected to furnish this needed technology as well as the management expertise for successful implementation.

There is a role for extension in praedial larceny. No programs have been identified across the region that provide advice to farmers and other constituents on how to deal with this issue. This is needed and with a special focus on guardianship. Farmers should be trained to review their operation from a thief’s viewpoint and ask; what would be the easiest method to enter and steal items? Farmers should be encouraged to at all times be cognizant of potential targets and conceal them as thieves have many strategies when identifying potential targets. Altering daily routines can act as a deterrent, making movements unpredictable to thieves. Asking for the credentials of any unknown or unexpected visitors, although risky, is also important.

They must also be advised that precaution must be taken when leaving large equipment such as tractors in the fields by removing keys, locking doors if possible and never leaving equipment within easy access to roads. Use of a lockable fuel cap is also recommended as reports have been made of fuel theft from parked farm vehicles.

In 2007 at The Public Consultation on Food Prices held in Trinidad, the Association of Professional Agricultural Scientists of Trinidad and Tobago (APASTT) presented a novel proposal designed primarily to secure food production and also mitigate praedial larceny (Isaac, Ganpat & Joseph 2017). The proposal included the establishment of Designated Agricultural Zones. These zones would be provided with the necessary physical infrastructure: roads, electricity, and water. There would be controlled access to these zones.

From the outset, the zones must be established with inputs from the Police Service regarding security concerns; there must be close collaboration between the entities in the zone and the Police Service. Other key suggestions included: all vehicles transporting produce out of the zones must have the appropriate signage; all produce leaving the zones must be labeled; each zone must be mapped along with all relevant data to produce Geographical Information Systems (GIS). This system should be made available to the Police Service; the officers of the praedial larceny Squad would be provided with hand-held devices linked to the GIS. This would facilitate verification of information during stop and search exercises.

The Jamaican Government addressed the problem of praedial larceny by establishing a receipt book system which was used by farmers and agricultural traders to demonstrate legal proof of sale or purchase of agricultural products (Isaac, Ganpat & Joseph 2017). They also initiated a Praedial Larceny Public Education Program and Praedial Larceny Prevention Unit (PLPU) which aimed at increasing awareness about the unacceptable levels of praedial larceny and more recently the National Animal
Identification and Traceability System (NAITS). In addition, all persons involved in agricultural transactions have to register with the Rural Agricultural Development Authority (RADA) and Island Special Constabulary Force (ISCF) officers would be assigned to various parishes to preside over the implementation of the praedial larceny program. Further, there are plans to tag animals using biometric tags and RFID biometric markers and also the use of drone technology to track down perpetrators.

In St. Lucia, the Agriculture Ministry attempted to address the praedial larceny problem by implementing a “four-pronged strategy”. The first arm of this strategy involved the enactment of stronger legislation to deal with praedial larceny and to regulate the sale of agricultural produce. The second arm aimed at a national identification program and licensing of bona fide farmers and traders. Thirdly, the government set upon working with Local Government and sought funding through the European Union Social Recovery Program to re-introduce the Rural Constabulary. Finally, the government embarked on an intensive public sensitization program to educate the public on the seriousness of praedial larceny.

In Antigua and Barbuda where “the agriculture sector continues to lose millions of dollars through the effects of praedial larceny” (Hilson Baptiste, Minister of Agriculture, Lands, Housing and the Environment, Antigua/Barbuda, 2009), similar strategies were employed. The Government also introduced an agricultural receipt book system and farmers were encouraged to register their business or form cooperatives. A public education program was also established to increase awareness of praedial larceny and to educate farmers to use prompt action in detecting and reporting praedial larceny.

Conclusion
Praedial larceny is a scourge for food producers. It is a very complex and serious problem affecting the agricultural sector in the Caribbean. It encompasses a wide range of agricultural produce and equipment and the complexity lies in the fact that it is very difficult to prove that a crime has been committed. In the past, the problem of praedial larceny was not given the attention it deserved, but as the global problem of food availability and food security comes to the forefront, more attention is being paid to this problem. In the Caribbean, the issue is rising to the fore because of the serious impact on the livelihood of farmers; especially small farmers who make up the vast majority of the farming population. Farmers are now being shown more respect and their voices are being heard- they are saying that they are fed up with this problem, and some national governments are implementing initiatives. Steps are currently being made to mitigate this serious crime; evidenced by the various programs being set up by some governments in the region to reduce the prevalence of praedial larceny.

In developing countries, food producers generally struggle to keep afloat; producing food under disadvantageous conditions and with limited or no support from the government, trade barriers and unfair regulations. Most farmers barely make ends meet, far less generate profits which can be reinvested to move them further along the continuum to full commercial operation and better standards of living. It is in these circumstances that any theft of farm produce or equipment becomes a serious blow to farmers. Often what is lost could well have represented the profits of the enterprise. If it is a regular occurrence, it has the effect of causing the farmer to become impoverished; unable to feed his family, frustrates movement away from subsistence to commercial farming and
make more profits to have a better standard of living.

Praedial larcenists do an injustice to farmers. While farmers can do somethings at the farm level to restrict the level of praedial larceny, actions at the higher governmental level can be more effective.

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References


Using Participatory Rural Appraisal for a Community Needs Assessment in Timor-Leste

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Abstract
Conducting timely and effective needs assessments in the field is important for international development work. In many cases, a researcher has only a couple of hours to build rapport with a community, visually examine the state of the field, and conduct the needs assessment and achieve open, honest, and valid data. Working with translators further constrains the process by cutting available time. Thus, research focused on conducting these types of international assessments is valuable. This study aimed to identify the key needs of the Fatubesi community in Timor-Leste using a combination of techniques for Participatory Rural Appraisal (PRA)—a transect walk and a small group discussion that included guided questions and ranking priorities. PRA is context specific and emphasizes facilitation of co-learning between local knowledge and outside expertise (Toness, 2005). Water, new fencing, and technical training/seeds were identified as the top three priorities for the community and their gardens, and the transect walk revealed issues with infrastructure that provided visual context for the small group discussion. The results of this study reflect the unique challenges faced by many communities in international development settings. The techniques described in this article are beneficial when used together for PRA to shift roles from expert facilitator to local empowerment.

Key Words: Participatory Rural Appraisal, Needs Assessment, Timor-Leste, Community Needs
Using Participatory Rural Appraisal for a Community Needs Assessment in Timor-Leste

We are a free country, but we are not free if our children are malnourished.
Mana Rosaria, Hiam Health

Background and Introduction

Thirteen years ago, we had a post conference workshop on Participatory Learning and Action (PLA) in Junction, Texas, led by Dr. Anna Toness. For many Association of International Agricultural and Extension Education (AIAEE) members at the time, that may have been our first exposure to the use of participatory development, rapid rural appraisal, and participatory rural appraisal (PLA). It seems appropriate as we consider the past 25 years of research dissemination for the Journal of International Agricultural Extension Education that we would celebrate the development approaches that allow us to actively engage with local communities, learn from local voices about the needs of communities, and empower communities for a sustainable future. We began this article with a quote from the director of a local NGO who reminds us why PLA is so important. Her title of Mana (or Maun for a male) is not just a title of respect but means sister (or brother). When we work together, we become part of one global family.

For background and context, the PLA needs assessment took place as a part of a United States Agency for International Development (USAID) project, Avansa Agrikultura, focused on health and nutrition in the country of Timor-Leste. The Democratic Republic of Timor-Leste is a new country, having gained their independence in 2002, with many economic and social barriers. One in six children under the age of five are malnourished, with close to 60% of children stunted, and an infant mortality rate close to 50% (Hughes, 2015). Some factors that contribute to malnutrition include a lack of dietary diversity, inadequate sanitation and hygiene, and a lack of clean water. The agency that provided access for us to work directly with village farmers was HIAM Health. HIAM stands for Hamutuk Ita Ajuda Malu, meaning “together we help each other.”

Prior to the needs assessment, we were briefed by HIAM Health about the Fatubesi community in the Maliana district. HIAM Health had been working in this community for less than a year. They had conducted a land and water survey using observations and basic measurements. They selected leaders in the community who were already small-scale farmers. The project objective was to include and promote the growing and eating of moringa for nutritional security. Moringa, native to parts of Africa and Asia, is also referred to as the drumstick tree. Moringa species grow quickly in tropical environments and are good sources of protein and other nutrients. The harvesting and processing of moringa is important for the improvement of nutrition, and as it enters the value chain, it becomes an economic driver for the community.

HIAM Health works with the local municipality leaders to select communities for participation and offers training on composting, planting, and nutrition/cooking for the introduction of moringa into the diet. HIAM Health also does screening of children under five years (weight, height, age) to determine the severity of malnutrition based upon stunting. HIAM Health staff did the initial survey in the Fatubesi community. Based upon the initial survey, HIAM Health can provide resources for the community (like a water storage tank), but they only pay half and the community pays the other half. This way, the community is economically invested in the project. After planting moringa for the
first year, the community can harvest it every 40 days, with a potential income stream that is intended to become sustainable. The moringa can also be made into a powder to mix with food as a supplement with an organic certification, another value-added characteristic of the project.

**Theoretical and Conceptual Framework**

Several scholarly works within AIAEE have used participatory needs assessment methods like Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA) (Baker, Pomeroy, Liberato, & Mashburn, 2006; Carey & Etling, 1997; Düval, 2002; Etling, 2003; Kelling & Bruening, 2004; Koundiny et al., 2010). Toness (2005) illustrated the importance of extension professionals being actively involved in the transfer of training, including agricultural, natural resource, health, economic, and social dimensions. The move in international development was to involve local expertise to facilitate learning as a shared activity (Chambers, 1994; Pretty & Vodouhe, 1997). Farming communities often work together, using the motivation, skills, and knowledge that result in actions from the community (Roling & Pretty, 1997). Participatory methods assume that learning is cumulative and diverse perspectives are sought through group inquiry and site-specific knowledge leading to consensus (Roling & Pretty, 1997; Pretty & Vodouhe, 1997).

Participatory Rural Appraisal (PRA) grew out of Rapid Rural Appraisal (RRA) techniques to include: (a) activist participatory research, (b) agro-ecosystem analysis, (c) applied anthropology, and (d) field research on farming systems (Chambers, 1994 as cited by Toness, 2005, p. 7). The key difference between PRA and RRA is the role of external experts. “Experts fulfill their role as agents of change when they help locals to become more aware of what are the technical options suitable to their own interest and development” (Ahmad, 1989 as cited by Toness, 2005, p. 7). Rather than the “giver” or “gatherer” of information (expert), the role is to share facilitation roles to equally value local knowledge (empowerment). This shared facilitation between expertise and empowerment is manifested through interactive data collection techniques, like transect walks, group discussion, matrices for ranking needs and other active ways of engaging the community and giving them “voice.”

PRA is a systematic methodology that considers (a) multiple perspectives, (b) group learning, (c) specific contexts, and (d) facilitation among experts and stakeholders, thus (e) leading to change (Toness, 2005). It parallels the qualitative/action research paradigm (Guba & Lincoln, 1981) and the empowerment of local communities with learners as co-creators of knowledge (Freire, 1970). It is a credible tool for needs assessment and evaluation research in communities with low numeration and literacy skills.

Transect walks are important tools in PRA and RRA. They allow external evaluators to link visual observations with farmers’ management practices (Oudwater & Martin, 2003). Transect walks also generally allow for animated discussion between farmers, community members, and the research team, helping to build rapport for future group discussions. Local knowledge is complex and dynamic, and methodology and context heavily influence the expression of this knowledge (Oudwater & Martin, 2003). Thus, finding and providing different methods of integrating local knowledge at multiple points in the research process is critical.

A needs assessment is the process for determining gaps between current conditions
and desired conditions. Needs assessment has theoretical foundations from Maslow’s Hierarchy of Needs (2014 reprint of 1943 edition), Appreciative Inquiry (Cooperrider, Barrett, & Srivastva, 1995), and Expectancy Theory (Vroom, 1964). Maslow’s theory is based upon human motivation. It is expressed as a pyramid with the physiological needs at the base (food, water, shelter, etc.) and abstract needs (such as self-actualization) at the top. In this research, the local communities did not have all their physiological needs met, so we were working at a basic level of the hierarchy. Appreciative inquiry is a method for examining social systems using collective inquiry to determine an ideal future for planned change. Expectancy theory proposes that people will act in a certain way because they are motivated by the potential outcome. If you consider the context for PRA, a developing country like Timor-Leste would be best served prioritizing basic psychological needs based upon indigenous knowledge for planning a sustainable future with outcomes that are agreed upon collectively.

Purpose and Research Objective

The purpose of this research was to collect needs assessment data in a rural community in Timor-Leste using Participatory Rural Appraisal (PRA) techniques. The research questions were: (a) What was the initial impact of the HIAM Health project on the community? (b) What current challenges does the community face? (c) What are the priorities/needs for future implementation of the project?

Methods

This research used Participatory Rural Appraisal (PRA) to collect open-ended data about community needs. This research fits most closely with the qualitative research paradigm and critical action research designs. Data were collected in the local community using a combination of a transect walk with farmers and a small group discussion (two groups simultaneously facilitated and translated). Many people in the community could not read, so oral data collection, participant observation, and field notes were used for data collection. Field notes were shared for triangulation across multiple observers. The convenience sampling was representative of the local community. Thick description is provided in the result section to promote the transferability of the data (Lincoln & Guba, 1985).

A methodological approach that supports the voices of nationals and locals was developed by Lincoln and González y González (2008). Transporting data across cultures can often result in a “lost in translation” experience, where cultural assumptions and language impact the interpretation and meaning-making. This method considers the role of the investigator as a living part of the study and the partnership of the researcher and locals (Lincoln & González y González, 2008). The researchers used the HIAM Health staff to translate and assist in facilitation and interpretation. This group already had a relationship in the community with one staff member living in the village. Their native language was Tetum and they were fluent in English. These approaches are considered emerging decolonizing methodologies that “foregrounds the voices of nationals and locals…in democratic and liberatory ways that effect research collaboration…to foster social justice and locally desired change” (Lincoln & González y González, 2008, p. 784).

The results will be presented in three sections: (a) the transect walk, (b) the narrative triangulated with the field notes and observations, and (c) the ranking of
needs. In group one, there were eight local participants (five women and three men), a translator, two HIAM Health representatives (one local and one from Dili, the capital city where HIAM Health is located), and four participant observers. In group two there were five local participants (two women and three men), a translator, a facilitator who also worked with HIAM Health and three participant observers taking field notes. Following the small group discussion, there was a nominal group technique implemented to rank the priorities and needs of the village.

Results

The Transect Walk

Timor-Leste is a country that faces many geographic barriers, including isolation as an island, dramatic rainy and dry seasons, poor soil, as well as countless others. On top of the geographic barriers faced by the whole country, every community faces their own unique physical barriers. There was a fence to climb over to enter the farm, meant to keep out roaming animals, but also acting as a physical barrier to community members to enter the garden. There was no drip irrigation like we saw in other gardens. This community is three kilometers from the nearest water source, which at this point in the season was a dried-up river, and it limited their irrigation capacity. Many of these characteristics noticed in the transect walk were discussed in the small-group meetings.

Further descriptions of the community and the garden help to provide a rich context for the needs assessment. There was a variety of plants growing in the garden (Bok choy, papaya, onion, moringa—trees and smaller plants that were recently harvested), but the primary focus of the project was the production and consumption of moringa. A Bali cow and her calf stood in a wooded area outside of the garden. There was no water storage tank for the community to use. The women were preparing food and washing on a table outside, while simultaneously cooking on a fire inside a cinderblock house. Several dogs were wandering around and children were in a room beside the “kitchen”. There was a covered porch behind the house of the community leaders with plastic chairs for us to sit. We were seated in one area together and local men and women were seated across from us. There was a formal welcome from the community leader and a HIAM Health trainer who worked and lived in the community. (See Figure 1 for a pictorial depiction of the farm in the community). Formal welcomes are an important cultural ritual that occurs whenever guests are present—from the capital and governmental buildings in the major cities to the remotest villages.
Figure 1. Photograph of the transect walk in the Fatubesi village.

The transect walk provided a rich, visual context for the visiting experts before participating in the small-group discussions. Without a transect walk prior to the discussions, the visiting experts would not have understood the physical barriers faced by the community that were so important in the resulting discussion. The walk also provided a chance for the visitors to build rapport with community members; thereby, increasing the potential for honest and open responses in the small groups. Combining transect walks with the group discussions is an invaluable mechanism for empowerment, knowledge-sharing, and meaning-making that provides depth to the needs assessment.

The Small Group Discussion

First, the researchers and members of HIAM Health discussed the process of the needs assessment with the community members, and the participants were asked to choose a spokesperson to represent the group. An interesting observation was that for one group, the question was asked in English and then translated to Tetum. The sub-village leader asked the participants the question again and there was a “private” discussion among the group before answering with the translator. The other group originally asked the question in Tetum, so participants would respond directly without having a group discussion first.

Project impact/future implementation.

The community was thankful for the training on how to plant the moringa and believed things were going well. One garden bed was collected and harvested to feed the family and share with the neighbors. “They have tried to make it into tea. They boil it and put it in soup for the children. They are happy, because it is ‘health’ for the children.” They first started by learning from the staff of HIAM Health to build walls for garden beds and clean the soil [weed and hoe]; then they received the seeds and planted the beds, all by instruction of the staff.

They weed and hoe the soil and add compost to maintain the garden daily. They water the garden from the river [no drip irrigation]. They collect
moringa in 40 days… hope we could have a good result in the garden to feed the children and community. [We were reminded to share this with other partners] because ‘our lives are simple.’

When asked about how the garden impacted time usage, the participants discussed “how time is divided by the amount of sun, with most work being in the afternoon. Everyone waters their own garden which is quite time consuming.” Of the 13 CO-OP members selected by a local leader, the community divides themselves into four groups to assist one another based upon proximity to the garden.

HIAM Health provides training to the farmers and technical staff who work directly with the community. They have one staff member living in the community permanently, so they do not need the Dili staff to come all the time. Typically, the technical staff come to the community once a month. The women in the group noted that they would prefer the Dili-based staff to come more often to inspect the progress. They would also like financial support for the installation of more water tanks in the community.

When asked about what changes to their diet/meals with the introduction of moringa, the community indicated that “they already know moringa because their grandparents used it, but they didn’t know the [health] benefits…now the community knows more.” Moringa was given to children and improvements were seen in their weight gain and overall health. “[A] post-clinic comes to take measurements and tells them to cook porridge with moringa and they can see the health benefits…bodies look better, they aren’t thin.” It was indicated that people in the village eat moringa once a day. Many people drink it as tea, put it in rice, or mix it with the porridge. Another says, “his children get diarrhea, but [I] tried to explain to my wife to add it to porridge and they add it every day.” During the dry season this is the only green vegetable they have in the community.

Challenges/needs. The focus was on needing water. Community members currently bring water from three kilometers away. Water pipes were developed by the Catholic Relief Services project in 1987, but the piping system has become dilapidated and not as effective. Some pipe was broken, and bamboo was used to patch it. If possible, they want to have the “black pipe” [made of polyethylene] instead of the bamboo. They also would like a tank to store water close to the gardens and community. This would reduce the amount of work required to get water. The tank would be for household use during the dry season, including watering the garden [moringa]. They also would like a fence to keep animals out of the crop area, since animals roam freely in the community. Currently, they are using local trees as the fencing, but they desired something like barbed wire for greater security. They went on to say that the community has different gardens and thus different challenges.

They have 13 members in the CO-OP. There are two rivers in the community to collect water. They could make more gardens with a consistent water source. The owner of the garden we visited were only two of the people in the CO-OP. One tank is enough for six members of the group; however, some gardens are far from each other, so they would need their own tanks [every household in the community would be 13 tanks]. Another challenge facing the community was related to their lack of
experience with farming moringa. They were concerned about yellow leaves after harvest and believed that the plant would die if they harvest every 40 days. Although “they began with layered gardens and added compost during plantings,” they were unclear about soil fertility. They also had questions about the use of moringa juice as a fertilizer and insecticide. “Should it be applied to the soil or the leaf… Does it prevent insects or provide fertilizer?” Local farmers had problems with insects and indicated that spraying did not help. The discussion entailed how moringa can be used to prevent insects from attaching to the leaf and the appropriate head height before dicing off the stems/leaves at an angle. There were several farms with this problem, but it was only one or two plants from the garden. It was suggested that “farmers replace the dying plant with seed and if it also dies, it may be from too much watering. Techniques for observing the soil for moisture and ways to better prepare the clay soil was important so roots can grow deeper.” [The plants were dying from the roots and there were not many plants for their first harvest]. This analysis would indicate a need for training, with technical staff demonstrating appropriate field management techniques. This section demonstrates the interaction that occurs within the needs assessment to directly influence farming practices.

Priorities ranked.
After the discussion, participants provided a rank order for the priorities/needs.

#1: Water. The community consistently and independently ranked water as the greatest challenge. Within this priority were three sub-categories: pipe for transport from the local river, tanks for water storage, and hoses/watering cans for watering the gardens. A lack of infrastructure (pipe) to bring water into the community causes an increased work load for collecting water for household and agricultural uses. The community believed that HIAM Health could provide support by linking the spring to the community with updated piping. “The local spring is used for the school, health clinic, church, and then divided among moringa farmers… no one person controls the water; everyone controls the water.” Their one connection to water is used by 45 families—too many households utilizing it which prevents sufficient watering. The moringa must be watered by hand (not all have hoses or even watering cans) and this impacts the growth of the plant for harvesting.

There is a rainy and dry season in Timor-Leste, so there can be an over-abundance of water (and more difficulty traversing the “roads” to get to market) during the rainy season. During the dry season, families must travel to the rivers to bring back water to the community. Typically, HIAM Health implements drip irrigation into the farming system, so piping of water into the garden would address many of these issues.

#2: Fencing. Another area of need was fencing to protect the garden from animals. Fences need repairs to keep the animals out and for expansion of community gardens. The community prefers barbed wire but can make it out of natural palm stems using trees for the posts.

#3: Seeds and technical training. The community expressed the need for seeds for other crops (like vegetables) to diversify the diet and to sell at the local market. “Two days ago, the staff came here and brought seeds (lettuce, pumpkin, mustard, tomato) but some received seeds and others did not… we want to eat and sell vegetables [to the local market].” They recognized moringa does not bring in income now, so it is a long-term investment. They would like
seeds for eggplant, melons, squash, broccoli, and cauliflower and want to be successful with the vegetable gardens. They would like to share [crops] with others in their community. They indicated that they did not know when the seeds from the moringa tree could be planted again. They need technical training on expanding the gardens and improving current practices.

Conclusions, Recommendations, and Implications

This research is an important component of expanding knowledge and experience with Participatory Learning and Action (PLA) through the use of Participatory Rural Appraisal (PRA) (Toness, 2005) to assess community needs. This assessment highlighted needs in the Fatubesi village in Timor-Leste, specifically noted in the transect walk, project impact/future implementation, challenges/needs, and priorities ranked. Challenges in this new country include severe malnutrition and infant mortality (Hughes, 2015), so there is a tremendous need and focus on nutrition in this country.

The greatest needs for this community were identified as water, fencing, seeds, and technical training. The questions presented in this assessment were ordered to allow for an investigation into general needs first, followed by prioritization by the community members. This allowed for an open and honest discussion about the wide array of community needs before narrowing the focus to distinguishing priorities.

The transect walk was an important aspect of this research, due to the observations made with this community. It allowed for a rich, visual context of the gardens and community, and allowed researchers to build rapport with community members by asking them about their practices and admiring the hard work put into maintaining this garden. Using the combination of the transect walk and the small-group discussion allowed for an integrated research methodology that encouraged cumulative learning and enhanced the understanding of local knowledge (Oudwater & Martin, 2003). Based upon the results and conclusions of this study, it is recommended that multiple methods be used in PRA, such as those presented in this paper, to express the complexity of local knowledge and to continually focus on community empowerment throughout the research process.

PRA can be a useful tool in cross-cultural research between Global North and Global South countries. It also has wide potential applications for international development work. Continual checks on quality assurance are important, to ensure that the rapidity of the process does not overpower the quality of collected data, but the integration of local knowledge, evaluation by locals, and community empowerment are all important aspects of PRA that leads to positive outcomes from this relationship between experts and practitioners (Chambers, 1994b). These quality assurance mechanisms help researchers to maintain the support of national and local voices described by Lincoln and González y González (2008). Uses of PRA and RRA with a maintained focus on local knowledge and expertise allow researchers to help local practitioners achieve self-empowerment and share in the experience of meaning-making. Evaluation is not a one-sided approach, especially when the needed outcomes are so dire. Remembering the words spoken by Mana Rosaria at the beginning of this paper, working towards community empowerment through these evaluation methods will hopefully lead to sustainable impacts for these malnourished communities.
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Considering an Appreciative Approach to International Extension Evaluation

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Abstract

Programmatic evaluation has become a common practice in international extension education. Evaluation has primarily been used to report the outputs, outcomes and impacts of extension efforts. Sometimes an evaluation is done for formative reasons, to make programmatic improvements, and most often for summative reasons, as a justification for further funding. Depending upon the evaluator (or evaluative approach) the evaluation will include stakeholder input and focus on collecting data the stakeholder will ultimately use. Some have even gone so far as engaging in developmental evaluation which allows for ambiguity and changes in direction throughout the duration of an extension program. Despite the many ways the discipline evaluates, almost every evaluation takes a problem-solving approach where areas for improvement are identified. The purpose of this manuscript was to reflect upon past evaluation practice within the international extension literature and discuss the role appreciative evaluation can play as evaluation continues to inform international extension efforts.

Keywords: extension, evaluation, appreciative inquiry, utilization-focused evaluation
Introduction

Evaluation has become a common term in the realm of international extension education so it is easy to forget that it is a fairly new concept. Many consider evaluation a necessary evil, a form of assessment that tells us whether or not what we are doing is worthy of funding (Rossi, Lipsey, & Freeman, 2004). Evaluation has historically been an afterthought, with evaluators brought onto a team (or hired externally) to do a summative review of a program once it is completed and seeking additional funds (Preskill & Catsambas, 2006). Over the past 20 years, the usefulness of evaluation as a process rather than just producing an end product has emerged across disciplines including extension education (Patton, 1997). Process evaluations and formative evaluations of extension programs have also become more commonplace; designed to complement and inform summative evaluation. As a result, evaluators are more frequently being asked to be a part of the program planning team from its inception and often drive program development to greater success.

New approaches to evaluation have emerged as the field of evaluation has expanded and grown. Funders and extension professionals are seeing the value in taking different approaches, trying new things and pushing to see if evaluation needs to remain an external process or if the political dynamics of a program can intertwine and even drive the evaluative process (Preskill & Catsambas, 2006). In addition, the mindset of evaluators (and the evaluation culture) is shifting and changing, with many evaluators ensuring the evaluative process is closely aligned with the values of the people and organizations wanting evaluative measures and results.

Research has shown that examining what is wrong with something and recommending ways to fix it, even if the evaluation is utilization-focused or collaborative in nature, is not always the best approach. In fact, many organizations have been taken beyond what they thought possible by focusing evaluative measures on uncovering how well a program is achieving its goals, what successes the program staff and overall organization is celebrating, and identifying strengths that then drive evaluative recommendations (Preskill & Catsambas, 2006). Given the emergent nature of international extension work, and its user-focused approach, one would think international extension professionals would be at the forefront of this shift and embracing an appreciative approach to evaluation of their programs. However, as a discipline, the work often comes first and the opportunity to reflect upon practice to ensure growth is missed. The purpose of this manuscript is to reflect upon past evaluation practice within the international extension literature and discuss the role evaluation can play as it continues to inform future international extension efforts. It is driven by the following questions:

1. How accepting, creative, innovative and forward-thinking have we been, as international agricultural and extension professionals, when considering how to evaluate our programs and processes?

2. Are we missing an opportunity to focus evaluation efforts on what is possible to obtain, rather than focusing on what is difficult to achieve?

3. Is it time to think about new ways to evaluate international extension programs and the power behind innovative approaches to evaluation?

Evaluation to Pass Judgment

Evaluation emerged as a necessity in the 1960’s when the 1965 Elementary and Secondary Education Act required that
school interventions be put in place to improve the education of disadvantaged students in the United States (U.S.) and local education agencies had to submit evaluation plans and summary reports in order to receive funds (Fitzpatrick, Sanders, & Worthen, 2003; Russ-erf & Preskill, 2001). The push for accountability of U.S. funds in this one area had a rippling effect and within 15 years every U.S. federal grant required an assessment of a program’s effectiveness and impact (House, 1993; Rossi et al., 2004). At this point in time there was not a field of evaluation, where experts focused on the study of evaluation practice, and the social scientists engaging in evaluation for fund accountability primarily relied on experimental and quasi-experimental designs. House (1993) stated “prior to 1965, evaluation was a minor activity, a sideline academics engaged in as extra consulting work” (p. 15). As a result, the lines between evaluation and research were blurry. Scriven (1991) delineated evaluation from research with his widely used definition of evaluation: “a process of determining the merit, worth, or value of something, or the product of that process” (p. 139).

This definition has been the foundation of many evaluations within the field of international agricultural and extension education because summative evaluation answers the question: Did the program work? Patton (2011) articulated summative evaluation “requires clear specifications of what the program intervention was in relation to intended outcomes” and that to “conduct a summative evaluation, the program must be identifiable, specifiable, stable, implementable, standardized, and replicable” (p. 37). Examples exist throughout the literature of the use of summative evaluation as an assessment of whether or not a program achieved its intended outcomes. Examples include Gockowski, Asamoah, David, Gyamfi, and Kumi (2010) using a summative approach in an evaluation of farmer field school programs in Ghana. Udoh (1999) used this approach to evaluate a family support program in Nigeria. Another example is the use of summative evaluation by Jayaratne, Taylor, Edwards, Cartmell, and Henneberry (2017) as they examined the process and outcomes of the African Entrepreneur Fellows program.

Scriven (1991) argued that before a program underwent a summative evaluation it should go through a period of time where it is scrutinized, revised and improved upon. The process, now commonly referred to as formative evaluation, ensures the program or process is ready for rigorous summative testing. The formative evaluation concept spread quickly, with the term used for “any evaluation aimed at improving an intervention or model” (Patton, 2011, p. 37). While not as frequently found in the literature because formative evaluation is intended to provide programmatic direction rather than for scholarly activities, several examples can be discussed. Rodriguez and Andrade (2018) used a formative evaluation approach to uncover opportunities to further communication efforts regarding agriculture and nutrition education in Nepal. Seiler-Martinez, Murphrey, Wingenbach, and Lobardini (2018) used a formative approach to identify barriers to adoption of new practices in developing countries as a way for extension agents to inform their program development, specifically in Guatemala. Dragon and Place (2006) also used a formative approach to their evaluation of why farmers struggled with the adoption of Integrated Agricultural Systems in Costa Rica.

Focusing on the User

Many evaluations conducted by international extension professionals have taken an additional step and been focused on
evaluation use with evaluation conducted for and with stakeholders. Utilization-focused evaluation is an approach originally outlined by Michael Quinn Patton (1997) in the late 1970s that has caught momentum and evolved over time. Utilization-focused evaluation does what it states: focuses the evaluation on the user – whatever stakeholder, either internal or external, is most likely to use the results (Patton, 1997).

Utilization-focused evaluation often includes a collaborative or participatory component where “there is a significant degree of collaboration or cooperation between evaluators and stakeholders in planning and/or conducting the evaluation” (Cousins, Donohue, & Bloom, 1996, p. 210). O’Sullivan and O’Sullivan (2002) discussed the use of collaborative evaluation when assessing the Sustainable Agricultural Extension (SARE) program. They found that not only the results, but the evaluative process, resulted in program stakeholders looking deeper into the program design and management systems, making adjustments and even revising their timelines based on expectations and ultimately being more successful. Düvel (2002) found that when participants were engaged in group dialogue during a participatory needs assessment process they reflected differently than when responding alone and became more engaged. The findings indicated the user-focused evaluative process, when implemented collectively, assisted in affirming or denying individual beliefs about a program and the group participatory approach held promise in getting users engaged.

Developmental evaluation takes participatory evaluation (or user-focused evaluation) to another level. Patton (2011) introduced developmental evaluation as an approach that breaks from traditional evaluation and challenges program developers, funders and communities to think about the broader system within which change can occur. In many cases, a developmental evaluation, which is flexible, nimble and can be altered throughout the course of program planning and implementation, is able to identify what a community needs versus what is being done and often indicates where a program should go, even if it is unplanned and unexpected. Patton (2011) stated, a developmental approach to evaluation is often most useful when working in a complex environment where (a) actions are nonlinear and can have many compounding effects on the system, (b) patterns of change emerge without any identifiable reason or source, (c) interactions between players are dynamic and unreliable in terms of level of intensity and amount of regularity, (d) interactions between players lead to adaption of program plans, (e) outcomes cannot be tied to processes, and (f) players coexist and evolve simultaneously. The programmatic description he offered sounds like most international extension programs. While the approach is relatively new, and breaks traditional evaluation boundaries, one would expect quick adoption given it could be extremely valuable in the context of international agricultural and extension work. At this time, not a single article in the Journal of International and Agricultural Extension Education mentions the use of developmental evaluation as an evaluative approach.

An Appreciative Inquiry Approach

Whether summative, formative, user-focused or developmental in nature, evaluation is almost always approached with an evaluator or evaluation team providing insight into areas where a program team is performing well resulting in positive change (whether expected or unexpected) and not performing well (identifying areas where a program has not met its intended outcomes). Recommendations for improvement and/or
whether funding should continue are often included in a final evaluation report which focuses on deficits. Human nature drives us to think about what we are not doing well so we can get “better” and an evaluator helps identify areas of weakness, which largely explains why many fear evaluation (or try to avoid it) given future funding is often tied to the results.

The trend of identifying weakness is pervasive throughout the developed world. Traditional performance reviews in the workplace focus on identifying areas for personal improvement, and professional development plans are designed to help us overcome our weaknesses. However, the Gallup Organization introduced the concept that employers should focus on employees’ strengths rather than weaknesses (Buckingham & Coffman, 1999; Buckingham & Clifton, 2001) using a positive psychology approach. Their research over time has shown that focusing on individual employee success ultimately leads to greater organizational success. Luthans (2002) described strengths-based performance reviews as focusing on “catching employees doing something right to reinforce them, rather than catching them doing something wrong to punish them” (p. 14). Which begs the question, why are evaluators always striving to find what is going wrong with a program rather than focusing on what is going right? Why not focus on appreciating the successes of a program, and their intended and unintended consequences, and encourage more of whatever it is the stakeholder appreciates?

Cooperrider and Whitney (2005) stated,

Appreciative inquiry is about the coevolutionary search for the best in people, their organizations, and the relevant world around them. In its broadest focus, it involves systematic discovery of what gives “life” to a living system when it is most alive, most effective, and most constructively capable in economic, ecological, and human terms. Appreciate inquiry involves, in a central way, the art and practice of asking questions that strengthen a system’s capacity to apprehend, anticipate, and heighten positive potential (p. 3).

Preskill and Catsambas (2006) offer an appreciative inquiry approach to evaluation that focuses on appreciating the strengths of a program rather than its weaknesses and forming programmatic recommendations based on what a program is doing well, rather than on areas where the program team struggles. They define this approach as, a group process that inquiries into, identifies and further develops the best of “what is” in organizations in order to create a better future. Often used in the organization development field as an approach to large-scale change, it is a means for addressing issues, challenges, changes and concerns of an organization in ways that builds on the successful, effective and energizing experiences of its members. Underlying appreciative inquiry is a belief that the questions we ask are critical to the world we create (Preskill & Catsambas 2006 p. 2).

An appreciative inquiry approach to evaluation requires not only the evaluator but the program staff and their stakeholders to shift their mindset. Whether or not the evaluation is formative, summative or developmental in nature it must be user-focused and conducted with stakeholder involvement. A few alterations to questioning routes can result in a refocused, revitalized effort. Table one highlights the difference between evaluative questions that come from a problem-solving approach
against those using an appreciative inquiry approach. The framing of the questions highlight how appreciative inquiry focuses on (a) appreciating the best of what is, (b) imagining what could be, (c) determining what should be, and (d) creating what will be in a collaborative environment (Preskill & Catsambas, 2006).

Table 1: Example evaluation questions using diverse approaches

<table>
<thead>
<tr>
<th>Problem Solving Approach</th>
<th>Appreciative Inquiry Approach</th>
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</thead>
<tbody>
<tr>
<td>What are the big problems with this program?</td>
<td>Under what circumstances is this program most effective?</td>
</tr>
<tr>
<td>Why have systems and procedures not worked?</td>
<td>What systems and procedures are most effective?</td>
</tr>
<tr>
<td>Why are we not getting the results we want?</td>
<td>What possibilities exist that we have not yet considered?</td>
</tr>
<tr>
<td>Why has the team been unsuccessful?</td>
<td>When has the team come together and been the most successful?</td>
</tr>
</tbody>
</table>

Application to International Extension Education

International extension education is well positioned to capitalize on the strengths-based approach of appreciative inquiry. There are four particular trends that may serve as strong tailwinds towards an appreciative inquiry evaluation movement. First, within many international contexts, extension is less professional, and thus less structured. The environment for appreciative inquiry evaluation is thus unencumbered with previous evaluation history (Preskill & Catsambas, 2006). Second, internationally, particularly when working across cultures and borders, it is critical to establish and maintain a participatory ethos (Patton, 1997). Frequently, there are not extrinsic incentives nor punishments that are easily leveraged. Many extension programs are dependent on volunteers giving of their time and talents. Third, an appreciative inquiry evaluation approach has the opportunity to uncover serendipitous results that are sometimes more valuable than the originally intended output or outcome (Preskill & Catsambas, 2006). Finally, evaluation as a discipline continues to evolve in response to societal trends and needs. There are no definitive right or wrong approach to evaluating an extension program as long as tenets such as truth, rigor, and participant care are adhered to.

Structural Opportunities

With over 190 countries around the globe there is the potential for more than 190 different conceptualizations of what international extension education looks like, all with differing levels of maturity. With the passing of the Smith Lever act in 1914, the United States’ Cooperative Extension system is one of the oldest and most prominent systems around the globe. However, in concert with the history accumulated in the U. S. system there have also been a number of institutional norms and precedents established. To the contrary, in many countries around the globe, extension systems are relatively new. For example, the extension system in Kenya underwent a country-wide change within the past decade.

The result of major organizational changes provide both challenges and opportunities. One of the key opportunities is the absence of historical, institutional
norms. Many extension systems are leveraging these conditions of creative destruction to build more efficient and effective approaches, tools, and techniques. Within this context appreciative inquiry evaluation may provide an opportunity to employ a very contemporary approach to evaluation.

**Participatory Opportunities**

In both emerging and established extension systems there are a few universal themes; one being the importance of volunteers. Volunteers fill many structural positions within the extension network; as educators, learners, facilitators, opinion leaders, and advisory board members. Volunteers must be treated differently than an employee of an organization. By their very nature, volunteers give their time, talents, and resources without formal compensation to support an organization or cause. In exchange for these inputs volunteers typically accrue benefits in the form of knowledge but also a sense of belonging, community, and participation. Unlike an employee that receives compensation for their actions, volunteers are typically not motivated by the same incentives. Whereas a paycheck provides a strong extrinsic motive to perform, no such motive exists for a volunteer. Similarly, the fear of losing a job for failing to perform is also a strong motive, yet again the motive does not exist for a volunteer.

However, the intrinsic motives that drive a volunteer to perform are where appreciative inquiry evaluation is particularly well positioned to capitalize. Specifically, appreciative inquiry focuses on what is going well, and where strengths exist. These findings are aligned and attuned to intrinsic motivations, with the results reinforcing positive experiences and commitment. Intrinsic motivation activation and reinforcement have been described as inspirational motivation, which has in turn been found to lead to higher levels of follower commitment and performance.

**Identification of Unintended Outcomes**

An appreciative inquiry evaluation approach is particularly well suited to international extension contexts where limited resources may necessitate novel and create problem-solving approaches that result in the identification of unintended outcomes and impacts. Although extension programs generally adhere to a basic plan, or logic model, to define the anticipated inputs, processes, and outputs of programs, appreciative inquiry evaluation provides a space for identifying where there may be opportunities for additional investment at any stage within the process. Without a constrained view of programs as static and deterministic, appreciative inquiry can examine what is going well with a program and assist it in changing course to ultimately have the strongest impact, even if it is different from the one originally intended. From this perspective, appreciative inquiry provides a better understanding of context and what might be, rather than what was.

**Conclusions**

One of the great challenges of theory-driven and empirical science is the need to find an appropriate balance between literature and innovation. Generally, maturity and accrued history result in diminished appetite for innovation and risk-taking. Evaluation as a discipline, has continued to evolve over the past several decades in alignment with societal shifts and trends. However, within international extension education, the evaluation process itself is rarely viewed as an outcome variable of interest. Rather it is a means to an end; or an approach to determine and articulate programmatic outcomes, impacts and value.
As educators around the world consider being strengths-based in their approach to program development, and even in their approaches to employee and volunteer performance reviews, appreciative inquiry evaluation is well positioned to assist. If we process the question, as a discipline, Is it time to think about new ways to evaluate international extension programs? we need to consider what may happen if we do not engage in innovative approaches such as this one. While a program team, and their stakeholders, must be educated and prepared to embark on an innovative approach such as this one, the value in focusing on the good resulting from extension programs, putting resources in place to support the most positive aspects of what is being done, and then seeing how far a program can go in reaching its intended and unintended outcomes could truly impact the world.

References
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The Photo Narrative Process: Students’ Intercultural Learning in Agriculture

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Abstract

Cultural heritage describes our way of life. It comes from previous generational traditions and incorporates our current constructed and natural environments, and tangible artifacts. The photo narrative process, derived from photovoice, combines photography and narrative expression about artifacts important to one’s way of life. The purpose of this study was to explore effects of the photo narrative process on students’ intercultural learning in agriculture. Photo narrative assignments were developed for students to capture facets of their cultural heritage, and their host countries’ cultural heritage from three separate study abroad programs. Archival data were collected (i.e., course assignments to illustrate one’s cultural heritage via photo and text) and visual social semiotics were used to analyze data. The Developmental Model of Intercultural Sensitivity provided context for students’ levels of intercultural competence. The results showed participants experienced frame shifts (i.e., perspective change in worldviews) from ethnocentrism to ethnorelativism, as evidenced in the rhetoric of their artifacts after participating in the photo narrative process. The photo narrative process is a valuable educational technique; its purposeful use helps learners experience and progress through the stages of intercultural competence. Photo narrative takes advantage of young people’s preferred communication methods (i.e., social media), combining image and text, which empowers them through expressive communication and reflection. Purposeful photo narrative processes may be adapted to help learners explore perspective shifts in racism, classism, or religion to increase understanding and empathetic response between dissimilar groups.

Keywords: Intercultural competence, photo narrative, cultural heritage

Note. This project was produced through Texas A&M University’s Undergraduate Research Scholars Program.
Introduction

Literature exists (Bringle & Hatcher, 2011; Conner, Roberts, & Sterns, 2016; Kasravi, 2009; Kitsantas, 2004) about the importance of teaching and practicing intercultural understanding (Cunningham, 2015) during study abroad or other high impact experiential (HIE) learning programs. How do we know if learners make progressive growth in understanding and acquiring intercultural competencies as a result of their HIE program? Some might rely on traditional evidence such as research papers to document learners’ growth/change over time. These traditional forms may not capture the fluidity of students’ changes in intercultural competence as well as more often used means like social media. Today, personal photographs with short narratives portray one’s culture, as seen through daily Facebook, Instagram, and Twitter posts. Given students’ proclivities for digital photography and truncated narratives to describe their daily existence, an updated method is needed to capture students’ descriptions of their cultural heritage, and intercultural understandings when studying abroad.

Every culture possesses its own set of traditional semiotics (Aiello, 2016). Traditional semiotics are defined as a “set of socially constructed meanings or norms that become embedded and naturalized in the cultural fabric, to the extent that they become invisible or common sense” (Aiello, 2016, p. 92). Cultural semiotics has the potential to be captured via photographs by members outside the culture in which they are embedded. Although meanings of cultural semiotics are not always fixed, or certain, the possibilities of their attributed meanings can give outside members insights into new cultures (Aiello, 2016). Developing an understanding of another culture’s semiotics opens the opportunity to expand viewpoints and develop compassion for individuals and communities globally (Harrell, Sterner, Alter, & Lonie, 2017).

Photographs purposefully captured to portray messages may have an impactful and educational role in students’ learning processes of different cultures. Purposeful interaction and assessment of another’s culture opens the potential to retain more information about that culture and its traditional semiotics. Intercultural competence can be defined as the ability to communicate effectively and appropriately in multicultural situations with people who differ linguistically and culturally from oneself (Byram, 1997; Sinicrope, Norris, & Watanabe, 2007).

Bennett’s (1986) Developmental Model of Intercultural Sensitivity (DMIS) was developed to “both illustrate ‘improvement’ in the ability to comprehend and experience difference, and it [implies] the strategies that will impede such experience” (Bennett, 1986, p. 181). Bennett’s (1986) DMIS was based on the concept of difference, in that cultures “differ fundamentally in the way they create and maintain world views” (p. 181). The more students recognize this ethnorelative principle, the greater intercultural sensitivity they possess. Byram (1997) identified one’s attitude, knowledge, skills of interpreting and relating, skills of discovery and interaction, and critical cultural awareness toward a different culture as significant factors contributing to intercultural competence.

Bennett (1986) observed six stages of intercultural competence, which are useful in understanding personal growth and development of intercultural sensitivity. The first three stages, denial, defense, and minimization, constitute an ethnocentric viewpoint, in which an individual’s own culture is the central worldview (Sinicrope et al., 2007). The second three stages, acceptance, adaptation, and integration,
comprise an ethnorelative viewpoint, in which an individual displays an increased understanding of the world (Sinicrope et al., 2007).

The ethnocentric stages of Bennett’s (1986) DMIS can be seen as “ways of avoiding cultural difference, either by denying its existence, by raising defenses against it, or by minimizing its importance” (Bennett, 2004, p. 1). The ethnorelative stages are “seeking cultural difference, either by accepting its importance, by adapting perspective to take it into account, or by integrating the whole concept into a definition of identity” (Bennett, 2004, p. 1-2). Progression through the DMIS expresses cultural competence, from less to more, providing a sound way of developing and teaching intercultural understanding.

Sinicrope et al. (2007) found Bennett’s (1986) DMIS is a dynamic model (Figure 1) that explains “how individuals respond to cultural differences and how their responses evolve over time” (p. 8). The early stages “define the parochial denial of difference, the evaluative defense against difference, and the universalist position of minimization of difference” (Bennett, 1986, p. 179). Conversely, concluding stages “define the acceptance of difference, adaptation to difference, and the integration of difference into one’s world view” (p. 179).

Figure 1. Bennett’s (1993) Model of Cultural Competency; adapted from “A developmental approach to training for intercultural sensitivity,” by M. J. Bennett, 1986.

Photovoice is defined as a communication and learning process, centered on the conception of knowledge in which people identify, portray, and enhance their community through photographs (Wang & Burris, 1997). The symbolic and ideological meaning of an image derived after in-depth analyses correspond to the “range of possible meanings inscribed by cultural codes” (Aiello, 2016, p. 94). The photovoice process involves participatory research, which can be applied to many disciplines to serve a functional role in education when approached with a focus on culture (Harrison, 2003; Wang & Burris, 1997).

Photo narrative, the combination of photography and narrative expression about artifacts important to one’s way of life, was derived from photovoice. Photographs contain visual social semiotics, or signs, reflecting individual beliefs, values, and attitudes about a culture’s political and social climates (Harrison, 2003). Photovoice has the potential to develop intercultural competence through valuable insights about lived experiences (Roberts & Edwards, 2016), generating knowledge and diversifying communication, through the portrayal of signs and meanings central to a different culture (Borron, 2013; Sinicrope et al., 2007).
Cultural competence does not develop automatically, or through mere contact with a different culture (Heinzmann et al., 2015). Therefore, participants’ shifts in intercultural competence through reflective inquiry resulted in changed perspectives that were “maintained and deepened over time” (Wilbur, 2016, p. 59). Wilson and Fowler (as cited in Liu & Dall’Alba, 2012) found that students’ active and purposeful engagement in the learning process shifted their intercultural learning. Intercultural sensitivity is “the ability to discriminate and experience relevant cultural differences” (Hammer et al., 2003, p. 422). Intercultural competence is “the ability to think and act in interculturally appropriate ways (Hammer et al., 2003, p. 422).

The purpose of this study was to explore effects of the photo narrative process on students’ intercultural learning in agriculture. The research questions were 1) Which stages of intercultural competence were most prevalent in students’ descriptions of their cultural heritage, 2) Which stages of intercultural competence were most prevalent in students’ descriptions of host country nationals’ cultural heritage, and 3) Did participants’ intercultural competencies shift because of their participation in the photo narrative process?

Methods

A qualitative research design (Patton, 2002) for this non-experimental study offered appropriate analyses techniques of photo narrative (PN) assignments that produced participants’ artifacts. The research design allowed measurement of the quality of descriptions from PN assignments to determine impact on cultural competence. This determination enabled the study of students’ perspectives through analyses of their communications (Fraenkel, Wallen, & Hyun, 2015). “A person’s or group’s conscious and unconscious beliefs, attitudes, values, and ideas often are revealed in their communications” (Fraenkel et al., 2015, p. 476). Among these revelations of students’ beliefs and values, natural cultural themes emerged through “developing appropriate categories, ratings, or scores” (Fraenkel et al., 2015, p. 476), which were used for subsequent comparison to highlight the phenomenon under study. The research was approved by the Institutional Review Board at [State] University.

The population (N = ~7,800) consisted of undergraduates in the College of Agriculture and Life Sciences (AGLS) at [State] University. Purposive sampling methods (Fraenkel et al., 2015) were used to draw a sample of students who studied abroad on one of three short-term (i.e., less than 30 days) study abroad programs in Namibia or Costa Rica during 2016 and 2017. The sample (n = 55), although self-selected, could represent the population of interest because all students in AGLS had the same opportunities to participate in the Namibia and Costa Rica programs (Fraenkel et al., 2015).

An important component for each of the study abroad programs was for undergraduate agricultural students to complete multiple PN assignments. The PN is a series of photographs paired with short narratives, which was used to gauge participants’ understandings of cultural heritage (i.e., own and foreign). PN assignments mirror a major facet of social media use in that it is a communicative photograph supplemented with a short narrative. The PN process has great potential for educators to create impactful assignments congruent with young peoples’ communication processes. Such assignments have the potential to help students understand and change their intercultural competencies.
Table 1 illustrates the ideas, similarities, and differences of each PN assignment for each study abroad program. PN1 and PN2 assignments from Namibia 2016 and Costa Rica 2017 are similar, but PN1 and PN2 from Namibia 2017 were enhanced to further develop students’ reflective processes. Despite this difference, all PN assignments were based on the same principles of increasing cultural competency through reflection while traveling abroad. Participants recorded their cultural perceptions (own and foreign) before and during travel.

Table 1. Photo Narrative Assignment Descriptions and Instructions.

<table>
<thead>
<tr>
<th>Program</th>
<th>PN1</th>
<th>PN2</th>
</tr>
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</table>
| Namibia (2016) | Submit a photo representing your personal cultural heritage and supplement it with 100-150 words describing why your photo best represents your personal cultural heritage. Also, participate in double-blind critiques (each student reviews another student’s photo, using the same criteria, and write why your peer’s photo best represented his/her culture). | Capture a specific element of your host country (see categories) via photograph, and supplement it with 100-150 words describing how, or why, the photo best represents the chosen theme (i.e., categories):  
  ● Historical/cultural value of an agricultural product  
  ● Consumer effect on production  
  ● Environmental issues affecting production  
  ● Multicultural significance between [respective country] and U.S. product uses/values  
  ● Socio-economic effects |
| Costa Rica (2017) | Submit a photo representing your personal cultural heritage and supplement it with 100-150 words describing why your photo best represents your personal cultural heritage. Also, participate in double-blind critiques (each student reviews another student’s photo, using the same criteria, and write why your peer’s photo best represented his/her culture). | Capture a specific element of your host country (see categories) via photograph, and supplement it with 100-150 words describing how, or why, the photo best represents the chosen theme (i.e., categories):  
  ● Historical/cultural value of an agricultural product  
  ● Consumer effect on production  
  ● Environmental issues affecting production  
  ● Multicultural significance between [respective country] and U.S. product uses/values  
  ● Socio-economic effects |
Table 1. Continued.

<table>
<thead>
<tr>
<th>Program</th>
<th>PN1</th>
<th>PN2</th>
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| Namibia (2017)  | Acquire a series of photos that best represent your cultural heritage two weeks before the date of departure. Supplement your photos with narrative one week after exposure in a new cultural environment. During the first week of study:  
  1. Choose three photos from your collection that best show your personal cultural heritage.  
  2. Describe (~200 words) how these photos best represent your cultural heritage.  
  3. Participate in double-blind reviews (i.e., each student analyzes a peer’s photo set and writes a narrative describing how the peer’s photos best represent his/her cultural heritage).  
  4. After the peer review, reflect on the similarities/differences between narratives. | Collect a series of photos that best represent the host country’s cultural heritage in the first two weeks of country study. After the second week of study:  
  1. Choose three photos that best represent the host country’s cultural heritage.  
  2. Describe (~200 words) how these photos best represent the host country’s culture or heritage.  
  3. Participate in double-blind reviews (i.e., each student analyzes a peer’s photo set and writes a narrative describing how the peer’s photos best represent the host country’s cultural heritage).  
  4. After the peer review, reflect on the similarities/differences between narratives.  
  5. Share reflections from the PN process related to intercultural learning and/or expression of cultural heritage in domestic and foreign settings. |

Data consisted of students’ archival PN assignments, collected after their short-term study abroad programs and after grades were assigned. Personal information (e.g., students’ names, family names, etc.) was redacted from the artifacts prior to analyses of the archival data. Table 2 displays the number of usable artifacts per PN assignment and program type.

Table 2. Frequencies of Coded Photo Narrative Artifacts.

<table>
<thead>
<tr>
<th>Program</th>
<th>PN1</th>
<th>PN2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Namibia (July 2016)</td>
<td>14</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td>Costa Rica (Jan. 2017)</td>
<td>20</td>
<td>17</td>
<td>37</td>
</tr>
<tr>
<td>Namibia (July 2017)</td>
<td>20</td>
<td>20</td>
<td>40</td>
</tr>
</tbody>
</table>
MAXQDA, a software for “qualitative, quantitative and mixed methods data analysis,” (MAXQDA, 2017, para. 1) was used to thematically group and code all PN artifacts. Descriptive methodology and qualitative analyses were used to “identify the symbols used in the image and determine their meaning for society as a whole” (Lester, 1995, p. 126) to detect common themes, messages, and meanings that help define a population’s culture (Edgar & Rutherford, 2017). Coding groups, themes, and ideas were formulated before analyses to aid in organizing and making sense of the descriptive text and photographs. Content analysis was guided by Bennett’s (1986) DMIS to measure if students transitioned from ethnocentric to ethnorelative worldviews, illustrated on a continuum of intercultural competence as a result of PN processes.

**Results**

This primary finding was that students’ intercultural competencies shifted from ethnocentric to ethnorelative worldviews after participation in the PN process. Frequencies of the DMIS stages in PN1 and PN2 artifacts showed students’ intercultural sensitivities changed when discussing their own and host country nationals’ cultural heritages.

**Ethnocentrism Revealed**

PN1 helped students establish a cultural base to build upon before entering a new culture. Figure 3 illustrates ethnocentric stages (denial, defense, and minimization) were found in students’ descriptions of their cultural heritage (PN1 artifacts). No ethnorelative stages (acceptance, adaptation, and integration) were found in PN1 artifacts.

![Figure 2](image.png)

*Figure 2. Frequencies of Bennett’s (1986) DMIS stages in PN1 artifacts.*

Table 3 has examples of “Defense” and “Minimization” from students’ PN1 artifacts. These examples illustrate ethnocentric rhetoric and ways of thinking, and a predetermined instinct to defend one’s own culture, values, and practices.
Table 3. *Ethnocentric Rhetoric from PN1 Artifacts.*

<table>
<thead>
<tr>
<th>DMIS Stages</th>
<th>Excerpts from PN1 Artifacts</th>
<th>Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defense</td>
<td><em>The recent celebration of our American Independence never fails to show the things that have the largest impact on our lives: America’s freedom. The bloodshed across the world for our freedom has changed the course of history, bettered the lives of millions, and will never be forgot.</em></td>
<td>Namibia 2016</td>
</tr>
<tr>
<td>Defense</td>
<td><em>To me, agricultural [sp.] is the most vital industry in the world, and I strive to be a part of it for the rest of my life like my ancestors before me.</em></td>
<td>Namibia 2016</td>
</tr>
<tr>
<td>Defense</td>
<td><em>I am born and raised Texans and will never leave home. This sunset is irreplaceable...</em></td>
<td>Costa Rica 2017</td>
</tr>
<tr>
<td>Defense</td>
<td><em>Almost all child-bearing women in my family lineage sacrificed a salary job to raise their children for the betterment of society...members of my heritage have stood the test of time and stayed strong with and for each other to weather the storms.</em></td>
<td>Costa Rica 2017</td>
</tr>
<tr>
<td>Defense,</td>
<td><em>In my culture, we don’t believe in waste. Food represents habits, heritage of recipes passed down, one generation to another.</em></td>
<td>Namibia 2017</td>
</tr>
<tr>
<td>Minimization</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ethnorelativism through Purposeful Reflection**

Figure 4 shows evidence of increased ethnorelative viewpoints, with “Acceptance” as the most prominent stage in students’ descriptions of host country nationals’ cultural heritage (PN2 artifacts). PN2 artifacts were completed after students spent two weeks immersed in their host countries’ culture. Descriptions in PN2 artifacts reflected ethnorelative, revealing a noticeable shift from PN1 findings.
Figure 3. Frequencies of Bennett’s (1986) DMIS stages in PN2 artifacts.

Table 4 shows students’ reflections from PN2 represented purposeful interactions with host country nationals and experiences in cross-cultural immersion. The rhetoric extracted from students’ PN2 assignments (Table 4) shows their desire to understand new cultures and a willingness to apply intercultural experiences in their own lives. Their changed views are seen as “manifestations of changes in the underlying worldview” (Bennett, 1986, p. 11).

Table 4. Ethnorelative Rhetoric from PN2 Artifacts.

<table>
<thead>
<tr>
<th>DMIS Stages</th>
<th>Excerpts from PN2 Artifacts</th>
<th>Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptance</td>
<td><em>...a key difference is that Namibia, unlike the U.S., included environmental protective measures in its constitution. This fact may hint at the idea that the cultures of Namibia hold their native wildlife and natural resources in higher regard than the U.S.</em></td>
<td>Namibia</td>
</tr>
<tr>
<td>Integration</td>
<td><em>Almost anyone in the U.S. can connect to that love for animals and playing as a kid, and see that Namibia may not be so foreign.</em></td>
<td>Namibia</td>
</tr>
<tr>
<td>Integration</td>
<td><em>Getting to hold this snake represents how easy it is to try something I normally wouldn’t do...Essentially, I have changed my cultural heritage because none of my other family members would dare do what I did in holding one of these giant predators. Now that I have experienced this change, I will be able to take what I’ve gotten from Costa Rica and apply it to my family heritage back in the United States.</em></td>
<td>Costa Rica</td>
</tr>
<tr>
<td>DMIS Stages</td>
<td>Excerpts from PN2 Artifacts</td>
<td>Programs</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Adaptation</td>
<td><em>The impact of a deep-rooted and strong family goes far beyond the naked eye, and the visible difference in cultural values is apparent to all who have an appreciation for affective multiculturalism.</em></td>
<td>Costa Rica 2017</td>
</tr>
<tr>
<td>Integration</td>
<td><em>The story of Namibia is the story of beauty and struggle...Namibia’s beautiful countryside tells a romantic story of naturalism, as the untainted land is truly this country’s greatest commodity.</em></td>
<td>Namibia 2017</td>
</tr>
<tr>
<td>Acceptance</td>
<td><em>The continuous push to be better, grow more, and achieve standards is what makes Namibian agriculture unique.</em></td>
<td>Namibia 2017</td>
</tr>
<tr>
<td>Acceptance</td>
<td><em>My experience going through Katatura reminded me that not everything is as rose-colored as it seems. This also shows different perspectives can help you appreciate a subject as a whole.</em></td>
<td>Namibia 2017</td>
</tr>
<tr>
<td>Adaptation</td>
<td><em>...learning from the Namibians will change my behaviors and how I take care of my own homeland.</em></td>
<td>Namibia 2017</td>
</tr>
</tbody>
</table>

**Perspective Shifts (Ethnocentrism to Ethnorelativism)**

Figure 5 illustrates the legitimacy of using PN processes to help students advance their intercultural learning, developing sensitivity and increased global competence. PN1 artifacts (blue lines) contained greater frequencies of students’ ethnocentric views before their international experiences. However, analyses of PN2 artifacts revealed much greater frequencies of ethnorelative perspectives after students had observed and engaged with host country nationals, even within two-weeks. In essence, time and the PN process helped participants shift their intercultural competence from ethnocentric (Denial, Defense, and Minimization) to ethnorelative (Acceptance, Adaption, and Integration) viewpoints.
Discussion

PN assignments were instrumental in helping students transition from ethnocentric to ethnorelative perspectives during international high-impact experiences. Artifacts examined in this study began with focused attention on each participant’s personal cultural heritage (PN1), moved to immersion and intentional engagement in new cultures (PN2), and concluded with increased intercultural competence because of purposeful reflections during the PN process. Bennett (2004) stated, “the DMIS supposes that contact with cultural difference generates pressure for change in one’s worldview” (p. 11). Our findings support Bennett (2004) through notable changes in students’ rhetoric and worldviews as illustrated from PN1 to PN2 artifacts.

Students’ intercultural sensitivities shifted while participating in the PN process during short-term study abroad programs. For future research, we recommend researchers discover methods to collect quantitative data to record participants’ intercultural perspective shifts using PN artifacts. Numerical values will be an important aspect of determining if significant changes in students’ intercultural competencies occurred because of their participation in the PN process.

The study’s outcome (i.e., shifts in participants’ DMIS stages as a result of PN processes) can help educators plan activities and assignments that align with young people’s methods of communication (i.e., social media use; pairing photographs with short narratives). Pew Research indicated that 88% of college-aged people (ages 18-29) used at least one social media platform.
in 2018, a substantial growth from 7% in 2005 (Pew Research Center, 2018). Table 6 shows percentages of social media users by selected demographics. A majority of American youth use social media, a valuable asset in applying PN processes across groups.

Table 5. Percent of U.S. Adults Who Use Social Media Platform.

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Facebook</th>
<th>Instagram</th>
<th>Twitter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race: White</td>
<td>67</td>
<td>32</td>
<td>24</td>
</tr>
<tr>
<td>Black</td>
<td>70</td>
<td>43</td>
<td>26</td>
</tr>
<tr>
<td>Hispanic</td>
<td>73</td>
<td>38</td>
<td>20</td>
</tr>
<tr>
<td>Age (18-29)</td>
<td>81</td>
<td>64</td>
<td>40</td>
</tr>
<tr>
<td>Education: High school or less</td>
<td>60</td>
<td>29</td>
<td>18</td>
</tr>
<tr>
<td>College</td>
<td>71</td>
<td>36</td>
<td>25</td>
</tr>
<tr>
<td>College graduate</td>
<td>77</td>
<td>42</td>
<td>32</td>
</tr>
<tr>
<td>Residence: Urban</td>
<td>75</td>
<td>42</td>
<td>29</td>
</tr>
<tr>
<td>Suburban</td>
<td>67</td>
<td>34</td>
<td>23</td>
</tr>
<tr>
<td>Rural</td>
<td>58</td>
<td>25</td>
<td>17</td>
</tr>
</tbody>
</table>

Note. Data were adapted from “Social Media Fact Sheet,” by Pew Research Center, 2018. Retrieved from http://www.pewinternet.org/fact-sheet/social-media/

Pew Research (2018) found exactly 90% of youth in elementary school own a cellphone; more than 90% of high school graduates and 96% of college students own cellphones, of which 80% were smartphones. Although some may not have social media accounts, opportunities for “PN-like” activities, or photographs supplemented with narratives, through cellphone use is widely available.

“Engaging in various forms of social media is a routine activity that research has shown to benefit children and adolescent by enhancing communication [and] social connection” (O’Keefe, Clarke-Pearson, & Council on Communications and Media, 2011, p. 800). The educational value and usability of PN assignments was demonstrated through this study. We can use PN processes to create a more understanding society. For example, future research should be conducted using PN processes to assess participants’ perspective shifts across a spectrum of social issues. Studies could focus on issues such as racism, religion, classism, and/or nationalism to increase understanding and empathetic response between dissimilar groups.

“Attempts to reduce the direct, traditional form of racial prejudice have typically involved educational strategies to enhance knowledge and appreciation of other groups” (Dovidio, Kawakami, & Gaertner, 2000, p. 102). Reducing prejudice can be done most effectively in group settings, such as during study abroad programs, or in traditional classroom settings. Bennett (2004) stated that each progression along the six stages of the DMIS “generates pressure for change in one’s worldview” (p. 11). Therefore, as individuals with the “‘default’ ethnocentric worldview” (Bennett, 2004, p. 11) become increasingly exposed to different cultures and ways of life, an impending pressure develops for the individual to adjust his/her own culture, or way of life, to accommodate the shifting social environment around him/her. “This happens because the ‘default’ ethnocentric worldview, while sufficient for
managing relations within one’s own culture, is inadequate to the task of developing and maintaining social relations across cultural boundaries” (Bennett, 2004, p. 11).

In concert with Bennett’s (2004) study, and using this study as a model, PN processes can be tailored for participants exploring issues such as prejudicial and stereotyping behaviors. PN processes encourage purposeful reflection and engagement between culturally and ideologically diverse groups. Bennett (1986) noted, “The DMIS is not predominately a description of cognition, affect, or behavior. Rather, it is a model of how the assumed underlying worldview moves from an ethnocentric to a more ethnorelative condition” (p. 11), producing increased intercultural sensitivity and competence. Therefore, curriculum and other developmental programs based on intercultural competence should be focused on altering worldviews rather than particular knowledge, expression of attitude, or skillset (Bennett, 1986).

This study had some limitations. First, latent content, referring to the underlying meaning behind text and images, was used in this study. While this was useful in garnering the core meaning of different content in the PN artifacts, coding latent content “comes at some cost in reliability” (Fraenkel et al., 2015, p. 482). It is possible that one element of latent content could be interpreted or assessed differently by two different researchers. Although both interpretations of one element are valuable, the validity of coding could be somewhat skewed or questioned.

Second, regarding future studies, it is recommended that researchers use the enhanced PN instructions from the Namibia 2017 study abroad program because they were more detailed, providing students with greater opportunities for growth in intercultural competence. Furthermore, a coding structure, or mechanism, should be developed to accurately capture each stage of Bennett’s (1986) DMIS through the detection of keywords or statements. The presence of keywords could be accurately measured based on frequencies in participants’ PN artifacts. In doing so, a uniform system would be established to code PN artifacts and quantify the qualitative contents of the data.

Another method for coding objectively PN artifacts would be to establish a third-party panel that could evaluate visual contents (i.e., photographs and images) for each PN artifact. The panel could evaluate images for congruence with the six stages in Bennett’s (1986) DMIS by using social semiotic theories. Their findings would provide quantifiable evidence to determine if significant differences existed in students’ shifting views between PN1 and PN2 artifacts.

This study could be enhanced by focusing on individual progressions of intercultural competence by tracking ethnocentric and/or ethnorelative rhetoric in PN1 and PN2 artifacts. By creating individual accounts of change in intercultural competence because of the PN process, the outcomes and credibility of similar studies would be strengthened in future research.

Participants in this study did not stay with host country nationals during their study abroad programs. However, assigning students to reside temporarily in host country nationals’ homes while abroad might contribute to their intercultural understandings and sensitivities (Fabregas-Janeiro, 2011). Many professional and educational settings require people to operate successfully in multicultural and global settings; thus, individuals who possess intercultural communication capabilities and understandings (i.e.,
intercultural sensitivity and competence) are in high demand. Because there is a need for cross-cultural relations “…then there is pressure to develop greater competence in intercultural matters” (Bennett, 2004, p. 11).

Conclusion

Qualitative analyses of students’ PN artifacts revealed deeper meaning beyond perceptions of new cultures, providing greater insights into students’ intercultural competencies. The general, non-specific nature of the PN assignment instructions makes them widely adaptable and versatile to a variety of disciplines and educational realms. PN processes have immense educational value and potential as tools to impact students’ ethnorelative worldviews by “[engaging] participants in a way to identify and visually portray issues that may otherwise go unsaid” (Borron, 2017, p. 12).

Enhanced intercultural competence should be a highlighted incentive of students’ participation in study abroad programs, as supported by Fabregas-Janeiro (2011). Fabregas-Janeiro’s (2011) study found that “Curricular materials should be examined and perhaps enhanced to assist in [developing intercultural competence]” (p. 41). This study presents a model for curriculum change that focuses on students’ development of intercultural competence.

“Although intercultural sensitivity is not a direct reason to study abroad, this idea and other global trends and theories suggest large-scale influences for why students study abroad” (Harrell et al., 2017, p. 58). Students who “received largely monocultural socialization” (Bennett, 2004, p. 10) typically possess a very limited “cultural worldview” (p. 10), stunting intercultural interactions and communications. “The development of intercultural competence describes how we gain the ability to create an alternative experience that more or less matches that of people in another culture. People who can do this have an intercultural worldview” (Bennett, 2004, p. 11). This study confirmed the PN process as a valid method to attain intercultural worldviews.

Harrell et al. (2017) noted the concepts of “intercultural sensitivity, internationalism and multicultural education are all related to the larger trend of globalization” (p. 58). Using PN assignments as vehicles to change intercultural competencies from ethnocentric to ethnorelative worldviews capacitates students to work in a “diverse society” (Harrell et al., 2017, p. 58); thus, making international experiences more valuable for career preparation. In our globalized world, international exposure and ability to collaborate with people from different cultures are valuable characteristics for graduates preparing to enter the workforce.

References


Abstract

The purpose of this paper is to provide philosophical observations and reflections over 25 years of the *Journal of International Agricultural and Extension Education* (JIAEE) as a reader, author, and editor. The paper provides a brief history of JIAEE including changes that occurred over the years. This paper honors those that contributed to JIAEE and stood as its caretakers over the past 25 years. This main body of the paper is divided into three sections: early years, middle years, and contemporary years. The paper explores the development and use of JIAEE keywords and provides visual depictions using wordclouds. The purpose of keywords is discussed and suggestions for future use are provided. Final recommendations and well wishes for the future are provided. Recommendations include: Considering the hiring of a permanent editor or publishing firm such as Taylor & Francis; creating a purposeful research agenda in conjunction with AIAEE; and redressing the developing and use of keywords.

Keywords: Keywords, JIAEE, managing change, partnerships, & historical
Introduction

I am excited to celebrate the twenty-fifth anniversary of the Journal of International Agricultural and Extension Education (JIAEE) through observations of reflections of our collective research. I published my first JIAEE paper over 20 years ago and have been an avid reader since the first issue was hand delivered to members at the 1994 annual meeting of the Association for International Agricultural Education. In the first issue “[t]he purpose [was] to develop a broad research and knowledge base on agricultural and extension education in developing countries” (Elliot, 1994, inside cover). While not published until ten years after the first AIAEE (originally known as Associate for International Agricultural Education) meeting, Meaders (2009) noted a journal as a medium for distributing scholarship was discussed from the beginning. You could purchase an ASCII formatted copy of JIAEE on a diskette for $15. Today JIAEE is open access and available only in an online format. In the latest volume of JIAEE “[t]he purpose…is to enhance the research and knowledge base of agricultural and extension education from an international perspective” (Hains, 2018, p. 1). Do you notice the difference in the purpose? From “developing” to “enhancing” and from “in developing countries” to “from an international perspective”. Things that change do not remain the same. JIAEE is changing and adapting as it ages and I would argue for the better.

When JIAEE was first conceived the complexities of online submission and publications were as unanticipated as digital object identifier numbers. When I first published in JIAEE, I was cautioned about its lack of track record and reputation. Today JIAEE is widely recognized as a leading journal in our field with a long record of accomplishment and stellar reputation based on its past successes. What will keep JIAEE as a prestigious journal will be different than what it took to gain its current status. JIAEE must continue to evolve and adapt.

“The world in front of you is nothing like the world behind you” Bolsinger (2015, p. 17).

In “Canoeing the Mountains” Bolsinger (2015) recounts the story of Lewis and Clark’s quest to find a passage to the Pacific Ocean. Finding the source of the Missouri river, it turned out, was the easy part of the expedition. Historical understandings and all their planning and training did not prepare them for the Rocky Mountains they encountered on their way passage to the Pacific Ocean. “Canoeing” over the Continental Divide was not possible. “They would have to change plans, give up expectations, even reframe their entire mission” (Bolsinger, 2015, p. 27). This quote resonates well with me as I reflect on the history of JIAEE and ponder how it evolved and will evolve to the challenges of an increasingly global society, population growth, and sustainability of agricultural practices.

For those that do not know me, I am very reflective and my best thoughts always come a day later. I also think about those before me that have also pondered current events and pontificated about the future. The first issue included several authors whom I had the pleasure to work with over the years that influenced my thinking and writing; giants in our field. These include Don Meaders, Barbara Ludwig, Arlen Etling, Bob Martin, David Acker, Jim Diamond, Roger Steele, and Wade Miller. The latest issue includes many of my contemporaries that I had the pleasure to work with over the years that influenced my thinking and writing; giants in our field. These include Theresa Murphrey, Grady Roberts, Amy Harder, and Wayne Ganpat. This issue also includes many new and first time authors that will contribute to the world in front of us. Along the way JIAEE has had the steady hand of many
Excellent editors including: Jack Elliot, Satish Verma, Jim Conners, Gary Wingenbach, Kim Dooley, Brenda Seevers, Amy Harder, Robert Strong, Kristina Hains, Alexa Lamm, and yours truly.

The early pioneers (editors and authors) of JIAEE established a strong bedrock from which to launch it into the future. Twenty-five years from now, my contemporary colleagues and I will likely be relegated to faded ink and poor memories. JIAEE will be very different than it is now. Those providing leadership to JIAEE likely have not even started a doctoral program. They will likely ponder why we did some of the things we did and hopefully recognize some of the hard work that it took to establish JIAEE as a premiere journal in our field. My hope is that what we have done in the past is prelude to continued success in the future.

The Early Years

From its inception, the scholarship of JIAEE has broadly represented our knowledge bases and contextual applications. Jack Elliot edited the first two volumes of JIAEE. In his last issue as Editor, he recollects the first couple of years of JIAEE in what he wrote “[t]he association comes of age” (Elliot, 1995, p. 2). He extolled that the future of JIAEE was positive. The first issue reported research on leadership education, adoption and diffusion, competency development, and educational impact (Elliot, 1994). Research on indigenous knowledge systems, youth development, gender issues, training and visitation systems, and empowerment of rural populations were also reported. During the first three years of JIAEE (1994, 1995, 1996) research was conducted in Bangladesh, Belize, Caribbean, China, Greece, Honduras, India, Iran, Kenya, Lebanon, Malawi, Mexico, Russia, Rwanda, Somalia, South Africa, Swaziland, Venezuela, and Zimbabwe. Satish Verma, JIAEE Editor wrote “[a] vision for the Journal by 2005 [included] … maturity, worldwide representation and circulation, universal access, diverse content, and multilingual print/electronic version are a few images of this version.” (Verma, 1996, p. 4).

It is apparent to me that JIAEE achieved its goals with one exception. While there were early attempts to print and distribute abstracts in additional languages this vision was never sustained. By Volume 4 of JIAEE, research contributions had grown enough to support a third yearly issue. This issue was referred to as the Conference Edition; a practice that ended with the summer 2014 issue. JIAEE provides an excellent history of AIAEE with “One Eye on the Rearview Mirror” (Verma, 1997, pp. 13-19) and offering insights for aspiring JIAEE authors. In this issue, Don Meaders offered three timeless recommendations for potential authors including conforming to style, logical flow of thoughts, and defining terms. In this issue, Arlen Etling laments the need for reviewers to offer well thought out responses and to complete their task in two weeks. In the summer 1998 issue (Verma, Hamilton, & Long, 1998), it was reported that the acceptance rate for all previously published issues was 62% and that it took from six to nine months to review and publish a paper. In the summer 2000 issue (Connors, 2000) noted that the JIAEE submission fee required was suspended. The summer 2001 issue (Connors, 2001) highlighted the first electronic publication of the summer proceedings online. Connors further noted that JIAEE was in a constant state of change for the better; to meet the needs of AIAEE members and JIAEE authors.

The Middle Years
I ascribe that the middle years of JIAEE covered Gary Wingenbach’s six years as Editor, Kim Dooley’s term and my term. The Dooley and Lindner term was the genesis of the managing editor, executive-editor, and past-editor format. Collectively representing Volumes 9-19 of JIAEE. Wingenbach provided leadership as the JIAEE online submission and review process was conceptualized and implemented. The first recognition for JIAEE Article of the Year was made in 2002. The JIAEE’s first Seminar Article Series paper was published in 2005. In this invited paper, the late James Christiansen wrote about “addressing the right issues and raising the right questions in AIAEE” (Christiansen, 2005, p. 5). In this paper, Christiansen offers eleven postulates for developing a more complete JIAEE theoretical base. Christiansen (2005) concludes his paper by asking us to consider five questions that may help our scholarship move forward: 1) Do we have the necessary partnerships to make a difference; 2) How can we better promote effective programs; 3) How can we better prepare the next generation of International Development Specialists; 4) How can we better integrate programs and projects and use holistic approaches; and 5) How can we better keep our colleagues engaged in International Development throughout their careers?

James Christiansen’s contributions to our professional cannot be overstated. This is why we are dedicating the 2019 AIAEE conference in his name and honor. In the Spring 2006 issue Wingenbach noted acceptance rates dropped to approximately 30% as JIAEE gained rigor and review time averaged about two weeks...progress. The spring 2010 issue was the only available online and was published through the current content management system operated by Cybersense. By 2010 acceptance rate dropped to approximately 15%; further highlighting the rigor of JIAEE.

Wingenbach was invited to reflect on his time as Editor under special invitation from the Editorial Board. He noted that “[t]he JIAEE serves as the AIAEE’s passport to the world” (Wingenbach, 2008, p. 7). He noted further “AIAEE needs to adapt, adopt, or create its own international research agenda” (p. 7). These middle years saw much change with JIAEE including electronic submission and publication. JIAEE began using doi to help readers find articles published in the Journal. Beginning with JIAEE Volume 10 Issue 3 authors were required to include keywords with their submissions. These keywords helped JIAEE to categorize and index information included in published papers. Additionally, these keywords were intended to help focus research and better communicate our collective word. Keywords from past issues along with a content analysis of all past issues resulted in what we use today as a basis for JIAEE topics (Lindner & Dooley, 2008, p. 5).

The…topics encompass the multidisciplinary nature of our work...: Education (Adult Learning, Curriculum Issues, Distance Learning, Experiential Learning, Faculty Teaching, Higher Education, Information Technology, Primary/Secondary Education, and Student Issues); Environmental Issues (Agro ecology, Energy, Ecotourism, Health Care, Natural Resources, Solid Waste Management, and Wildlife Biology); Extension (Administration and Policy, Curriculum Development, Delivery, Methods, Programs, Systems and Models, and Theory and Practice); Partnerships (Community-based Organizations, Cooperatives, Governmental Organizations, NonGovernmental Organizations, and Public-Private Networks); Perspectives (Age, Ethnicity, Gender, Historical, and
Philosophical); **Planning and Evaluation** (Accountability, Competencies, Needs Assessment, Program Effectiveness, and Program Evaluation); **Management** (Administration, Communications, Leadership, and Marketing); **Managing Change** (Change Theory, Entrepreneurship, Planned Change, Public Good, Social Change, and Technology Transfer); **Research and Methods** (Case Study Research, Experimental Research, Participatory Rural Appraisal, Qualitative Research, Rapid Rural Appraisal, and Survey Research); **Teaching and Learning** (Instructional Design and Delivery, Learner Characteristics, Learning Outcomes, Learning Theory, Teacher Education, and Teaching Methods); and **Training and Development** (Capacity-Building, Community Development, Farmers, Human Resource Development, Participatory Training, Professional Development, Programmatic Issues, Sustainable Development, and Youth Organizations).

Figure 1 depicts a wordcloud of the keywords presented above. The visual presentation indicates the frequency of keywords to be used to categorize and index submissions by size of text. Keywords used most in this categorization included: Learning, research, development, education, change, issues, organizations, rural, managing, and methods.

**The Contemporary Years**

While JIAEE manuscripts submission guidelines specifically call for keywords to be selected from the list of topics available on the submission logon page this requirement is rarely followed. That is, the keywords selected for review purpose do not match keyword categories. JIAEE reviewers are asked to select reviewer topics that they feel comfortable reviewing submissions under. There is a disconnect between the how and why keywords should be used. Keywords included by authors in Volumes 20-25 of JIAEE were used to create the wordcloud presented in Figure 2. The visual presentation indicates the frequency of keywords by size of text.

Keywords listed most often include: Agriculture (53), Extension (45), Education (29), Development (27), International (25), Farmer (20), Community (14), Assessment (12), Study (12), Service (11), Technology (11), Experience (11), Competence (10), and Capacity (10). Over 250 unique words and/or phrases were used as keywords. Countries or regions listed most often as a keyword included: Haiti (9), Caribbean (8), Africa (6), Trinidad and Tobago (5), Uganda (4), United States of America (4), and Nepal (4).
Black (1962) noted that the use of keywords for indexing, cataloging, and retrieving began in the mid-1950s. In discussing keywords he wrote that “[t]he only word or words which will describe a subject are those by which the workers in that field refer to it” (p. 313). The Taylor and Francis Group (n.d.) noted that the selection and use of keywords are needed to help others discover and find our collective research. They note further that such discovery is needed for indexing and promoting scholarly work. Collectively, I would argue that keywords establish the parameters of our research and communicate that to those seeking our expertise. Springer (2018) publishing highlights that keywords should be specific to the field of study being represented and cautions against using general words and terms that lack such specificity. Joshi (2014) wrote that keywords help readers find relevant papers on the topic in which they are interested. Joshi (2014) offers five suggestions for selecting keywords: regional context of study; methodological context/technique; applications of findings; phenomena studied; and avoid words from title. Words and phrases in titles of papers are perfunctorily indexed. Rodrigues (2013) highlighted the need for careful selection of keywords. Rodrigues further noted that along with the title and abstract keywords are critical to communicating research findings.

JIAEEs contemporary years end with a consistent theme for the Journal…change. The first issues of JIAEE allowed for submission of philosophical, theoretical, and practice manuscripts. Maximum length of manuscripts was 12 pages. Book reviews were also accepted. Over time acceptable submissions morphed into feature articles (reporting original research within a maximum of 20 pages), commentary articles, tools of the profession, and book reviews. Today JIAEE accepts: feature articles (reporting original research, methodological findings, and theoretical and conceptual building papers within a maximum of 20 pages); and research notes (presenting emerging research on contemporary issues, innovative programs, and replication of previous research within a maximum of 10 pages).

**Beyond Excellence or Replacing our Canoe**

What appears to be happening has already happened…JIAEE has changed. JIAEE has had 25 years of excellence and enjoys a reputation as one of the premiere journals in our field of study; agricultural and extension education. Happy birthday JIAEE and congratulations to all the editors, authors, and readers. Like Lewis and Clark, the “canoe” that got us to where we are today will likely not take us into the future. Change will continue and we likely cannot fathom what that change will be. I doubt it will be a linear progression of what got JIAEE to where it is today. Much like Lewis and Clarke’s voyage up the Mississippi River in canoes to find a passage to the Pacific Ocean, JIAEE will ride the currents
until its next challenges. Looking at JIAEE from Volume one to Volume twenty-five it looks like cataclysmic change occurred, this however, is not true. Change happened slowly with able-bodied captains (JIAEE editors) hands on the rudders steering the Journal threw both clear blue waters and turbulent rapids. The future will present challenges to JIAEE and I am confident the Journal will respond and strengthen over time.

“In matters of style, swim with the current; in matters of principle, stand like a rock” Thomas Jefferson

Reporting our collective research, methods, and practices are the rocks on which we stand. Having a journal that is well-respected, rigorous, blind-peer reviewed, and relevant are characteristics of JIAEE that should never change. In *Built to Last* Collins and Porras (1994) remind us that to be successful we must be willing to change everything about JIAEE except those characteristics that define us. Getting in the currents…perhaps the time has come to move JIAEE ahead again by hiring a permanent editor. Perhaps envisioning a future similar to *The Journal of Agricultural Education and Extension* (JAEE) published by Taylor & Francis. This strategic partnership provides valuable opportunities for JAEE of which we cannot take advantage unless we change. AIAEE needs to create and reflect a purposeful research agenda focused on a shared vision for our collective work; the conference and JIAEE should be outlets for this agenda. Keywords need to be reviewed and updated. Keywords are the basis from which JIAEE hangs its theoretical underpinnings. We should not cede this responsibility to authors’ arbitrary selection, rather they should be established by JIAEE. We must do a better job indexing and communicating our research. Will it be easy? No! Ask any previous JIAEE editor yours truly included.

To paraphrase my friend and mentor, James Christiansen, ata boy JIAEE you done good! Happy birthday JIAEE. Carpe diem JIAEE, carpe annos sinulos JIAEE, quotidie celebramus JIAEE…the best is yet to come.

References


