Mid-Western Educational Researcher

Volume 10 | Issue 4 Article 4

1997

Examining What Should Be the Role of an "Internationalized" Land Grant Extension System

Barbara G. Ludwig
Ohio State University Extension

R. Kirby Barrick University of Illinois at Urbana-Champaign

Follow this and additional works at: https://scholarworks.bgsu.edu/mwer How does access to this work benefit you? Let us know!

Recommended Citation

Ludwig, Barbara G. and Barrick, R. Kirby (1997) "Examining What Should Be the Role of an "Internationalized" Land Grant Extension System," *Mid-Western Educational Researcher*. Vol. 10: Iss. 4, Article 4.

Available at: https://scholarworks.bgsu.edu/mwer/vol10/iss4/4

This Featured Article is brought to you for free and open access by the Journals at ScholarWorks@BGSU. It has been accepted for inclusion in Mid-Western Educational Researcher by an authorized editor of ScholarWorks@BGSU.

Examining What Should Be the Role of an "Internationalized" Land Grant Extension System

Barbara G. Ludwig
Ohio State University Extension
R. Kirby Barrick
University of Illinois at Urbana-Champaign

Abstract

The purpose of the study was to identify the characteristics that will describe an internationalized state extension system. The study used a modified Delphi technique to explore and describe the characteristics of an internationalized state extension system. By consensus of the Delphi Panel, five critical elements were identified. Extension systems can use these as criteria to make initial assessments on the level of internationalization present.

"America's future rests on its ability to understand and compete in a world which year by year moves rapidly toward economic, political and social interdependence."

Ping (1990, p. 27)

Introduction

Extension has existed in the U.S. as part of the Land-Grant College system since 1914. Over time the mission and focus of Extension has changed from outreach education from the university targeted toward agricultural producers to include a broader social orientation. An increased interest in internationalization of Extension has occurred (Henson, Noel, Gillrad-Byers & Ingle, 1990; Ingle & Gage, 1990; Somersan, 1992). This interest appeared to be a result of many factors and influences, both within and outside Extension and the university. *America 2000* targeted the need for an educated citizenry who have the knowledge and skills to compete in a global economy. The report stated "all our people, not just a few, must be able to think for a living, adapt to changing environments, and to understand the world around them". (U.S. Department of Education, 1990, p. 35).

A review of literature indicated that internationalization is frequently viewed in general, rather amorphous terms that are difficult for some to understand and comprehend (Henson, Noel, Gillrad-Byers & Ingle, 1990). Arum and Van de Water (1992), in their book *Bridges to the Future: Strategies for Internationalizing Higher Education*, supported this view. In article after article, report after report, and at conference after conference the terms used to characterize the international dimension of education vary tremendously.

Purpose

The purpose of the study was to identify the characteristics of an internationalized state university Extension system.

Broad, but often ambiguous, goal statements are frequently used related to internationalization of Extension (ES-USDA, 1989; Ingle, 1990; King & Martin, 1991). Some ideas have

been formulated for internationalizing (ES-USDA, 1989; Henson, Noel Gillrad-Byers & Ingle, 1991; Knox, 1987; Patton, 1984; Somersan, 1992; York, 1984), but there has been little emphasis on implementation by Extension systems across the country (Andrew & Lambur, 1986; Poston & O'Rourke, 1991; Rosson & Sanders, 1991). Few studies have been conducted related to internationalization of the Extension component of the land-grant university system. None defined internationalizing in terms of objectively verifiable indicators of success. A need to examine and improve the understanding of internationalizing of a state university Extension system became apparent through a review of literature. If the characteristics of an internationalized Extension system could be identified, then an organization might focus available resources to create changes needed to achieve internationalization.

Kaufman (1982, 1992) suggested putting problems into the context of what is and what should be when dealing with organizations. The Organizational Elements Model (OEM) developed by Kaufman (1982, 1992) provided a framework for the study. Kaufman's model used a holistic framework in looking at organizations and what those organizations use, do and deliver as well as the impact on clients and society in general. The current study was limited to examining organizational efforts and organizational results.

Methodology

The study used a three-round, modified Delphi technique to explore and describe the characteristics of an internationalized state Extension system. Delphi, a group process, utilized individual written responses to three researcher developed instruments as opposed to bringing individuals together for oral discussion. The process was further characterized by multiple iterations or feedback designed to accomplish convergence of opinion. Participants' anonymity was maintained during the three rounds of the study.

Linstone and Turoff (1975) outlined situations where the use of the Delphi was indicated. Situations included: (1) pre-

cise analytical methods were not suitable for studying the problem, but subjective judgment on a collective basis could provide beneficial information relative to the problem; (2) time and cost limited the ability to convene group meetings involving the individuals needed to address the problem; (3) the individuals needed to contribute to examination of a broad and complex problem represented different backgrounds with respect to experience or expertise; (4) anonymity assured that disagreements among individuals which might result in a faceto-face interaction could be referred; and (5) domination by a group or individual was avoided. All of these situations were evident in the problem to be addressed.

Panel Selection

The Delphi Panel members were purposefully selected following a nomination process. An accessible population was identified following a review of authors of significant publications, solicitations of nominations during consultations with professional leaders in the field, and personal knowledge of outstanding contributions made. A review panel consisting of three faculty members with extensive knowledge of the topic was used to assist the researcher in the selection process. A total of 15 individuals, well known and respected for their contributions to Extension or land-grant colleges or universities in the area of internationalization, was identified. The participants selected by the review panel met at least three of the criteria established for selection. The criteria were: (1) national/ international reputation; (2) familiarity with the topic; (3) has conducted research, written or lectured on the topic; (4) was considered to have a deep interest in the problem and important knowledge or experience to share.

Instrument Development and Data Collection

Specialized instruments were developed following a review of the literature to clarify the concepts being studied and suitability of the modified Delphi research technique to assess these concepts. In the modified Delphi, position statements were used in place of an unstructured questionnaire on the first round. Three rounds were planned and three instruments were developed. The development and administration of questionnaires is interconnected in the Delphi technique.

Instrument Development

The initial instrument contained 39 position statements derived from the literature and structured interviews with international experts. Face and content validity of the initial instrument were assured through the use of a content validity panel. The reviewers, six faculty from universities in the U.S., Europe and Africa who were familiar with the U.S. Extension system were advised of the objectives of the study and the purpose of the instrument. Each was asked to review and refine the alternatives stated and identify additional important positions pertaining to the study. Comments and suggestions related to clarity and content were solicited. Given the nature of the Delphi technique, additional types of validity and reliability estimates were

not appropriate for the instrument (Dalkey, Rourke, Lewis and Snyder, 1972; Hughes, 1993).

The Delphi Panel was asked to identify the degree to which they believed each item on the instrument contributed to the internationalization of a state university Extension system. A seven-point Likert-type scale was used with 0 indicating "no importance" and 6 indicating "critical importance". Delphi Panel members were asked to support their opinion with a rationale. Space was also provided for panel members to add new statements. Delphi Panel responses were incorporated in successive instruments.

Instrument II was developed based on responses to the first instrument and suggestions for new statements made by the Delphi Panel. During Round I, consensus was not achieved on any statement based on the criteria established. Consensus on a statement was considered to have been reached when 80% of the ratings (12 panel members) fell within two rating categories on a seven-point scale (Ulschak, 1983). The instrument used in Round II repeated the 39 items from Round I. Based on suggestions from the Delphi Panel, 12 new items were added and 9 items were reworded so that a total of 51 items were considered.

Two types of feedback were provided the Delphi Panel in Instrument II. The first was statistical feedback in the form of group response using a frequency table for each statement and the individual's own response on each statement. Neither the mean nor median was reported as a descriptive statistic. The dispersion of scores indicated these statistics could be misleading to the Delphi Panel. In addition to statistical feedback, all comments by the Delphi Panel for each statement in Round I were anonymously reported. The instruments used in the second and third rounds contained items on which a predetermined level of consensus was not achieved during the previous round. Consensus was achieved on nine items during the second round.

Instrument III was developed based on responses to the Round II instrument and suggestions made by the Delphi Panel. The round III instrument contained 42 items on which consensus was not achieved in Round II. Two types of feedback were used in Round III. The first was statistical feedback in the form of group response using a frequency table for each statement and the individual's own response on each statement. The mode was identified as well. In addition to statistical feedback, all comments by the Delphi Panel for each statement in Round II were anonymously reported. In Round III, the Delphi Panel was asked to review each statement, re-evaluate their position and rerate using the same seven point Likert-type scale. During Round III, consensus was reached on 29 items.

Data Collection

The Delphi instruments were mailed to the Delphi Panel using regular U.S. mail or air mail to international locations. The mailed packet consisted of the instrument, an individually addressed cover letter and a self-addressed stamped return envelope. A variety of techniques was used to ensure maintenance of interest and participation in the study.

Table 1 Characteristics Having Importance to Extension Internationalization

Item	Mean	SDO	Category	Item	Mean	SD C	ategory
Clientele develop a fundamental understanding of global and national interdependence.	5.85	.38	R	Professional improvement activities increase activities increase knowledge of global issues.	4.93	.47	Е
Extension educational programs within in the U.S. stress the impact of international economic forces on agricultural markets.	5.69	.86	R	Extension is involved with international development activities.	4.93	.92	Е
Extension educators incorporate international perspectives into on-going educational activities.	5.54	.66	R	Local business persons are trained for participation in international markets.	4.93	.62	R
Extension faculty/agents recognize the relationships between basic international issues (e.g. knowledge of	5.54	.66	E	Specific groups (i.e. commodity groups) are targeted for public policy education on global decision-making.	4.86	.66	R
international agriculture, commitment to human development, significance of privatization) and the Extension mission.				The organization's best junior faculty/agents are identified to participate in overseas assignments.	4.86	.36	Е
Personnel evaluation systems recognize international efforts.	5.50	.76	E	Administrators engage in experience which will internationalize their own professional lives.	4.86	.53	E
Key leaders participate in interdisciplinary international experiences.	5.36	.74	R	Regular encouragement/accommodation of visitation by scholars from other countries occurs.	4.86	.66	Е
Sensitivity to diversity issues by Extension clientele is enhanced.	s 5.36	.63	R	Proposals for international work are developed and funded.	4.77	.44	Е
Reward structure recognizes internationalization in its system of rewards. These include merit adjustments, tenure, promotion, and peer recognition.	5.31	.63	E	The organization's best senior faculty/agents are identified to participate in overseas assignments.	4.64	.63	E
Financial support for internationalizing activities is available.	5.21	.43	E	Exchange programs with extension organizations in other countries are institutionalized.	4.64	.74	E
Administrators clearly communicate support for internationalization.	5.14	.66	Е	Rural clientele are targeted for educational programming related to the current international marketplace.	4.64	.74	R
A person(s) is identified to provide leadership to internationalizing efforts.	5.14	.53	E	Educational programs planned by Extension help clientele secure a better understanding of complex worldwide issues.	4.57	.76	R
International experiences are provided for county agents who do not have faculty status.	5.08	.64	E	Extension educational programs offered to 4-H members help develop international awareness.	4.57	.76	R
Policy and operating procedures facilitate international program efforts.	5.07	.62	E	Educational programs increase participant's understanding of other cultures.	4.57	.76	R
The organization culture expects international activity.	5.07	.62	E	A committee(s) is established to guide internationalization efforts.	4.57	.65	Е
Extension educators assist communities in building a sense of responsibility for wise use of natural resources in the context of global trends.	5.07	.62	R	Exchange programs with extension organizations in other countries are planned and conducted on an on-going basis.	4.50	.65	Е
Faculty increase their expertise by interacting with faculty and scholars from other cultures.	5.07	.47	E	Training programs are provided for foreign immigrants living in the United States.	4.50	.52	R
Human and physical resources are allocated to support the integration of international activities in the overall institution effort.	5.07	.47	E	Urban clientele are targeted for educational programming related to the current international marketplace.	4.50	.65	R
Opportunities for international experiences are provided for administrators.	5.00	.55	E	Extension clientele interact with visiting scholars and students to become more globally aware.	4.31	.75	R
The central mission of the Extension system includes a commitment to international education.	5.00	.55	E				

 $0=No\ Importance;\ 1=Slight\ Importance;\ 2=Limited\ Importance;\ 3=Moderate\ Importance;\ 4=Moderate\ Importance;\ 5=High\ Importance;\ 6=Critical\ Importance$ Scale:

Categories: E = Organizational Effort; R = Organizational ResultRound 1: N = 14; Round 2: N = 13; Round 3: N = 14Note:

Data Analysis

Descriptive statistics were calculated for each round. The computer program SPSS was used for data analysis. For each round, items on which consensus was reached were identified. Consensus on an item was considered to have been reached when 80% of the ratings fell within two categories on a seven-point scale.

Frequency counts and percentages, along with the mode and median were reviewed in determining consensus. For each round, those items not meeting the criteria for consensus were included in the following round as well as new items generated from suggestions. Suggested items were compiled and content analysis was conducted following procedures outlined by Altschuld (1993) and Delbecq, Van de Ven & Gustafson (1975). Following Round III, statistics of central tendency and variability were calculated for all items on which consensus had been reached. The mean was used to describe the level of importance of the item to an internationalized state Extension system as determined by consensus of the Delphi Panel and variability was described through standard deviations.

Results

The results of the study represent the collective opinion of the experts participating in the Delphi Panel at a single point in time and cannot be construed to be representative of any other population or situation. Fourteen of the 15 participants responded to each round, a 93% response rate. Fifty-one items were considered during the three rounds of the Delphi. Consensus was achieved on 38 items which were identified as having moderately high importance to critical importance for the internationalization of a state university Extension system. Table 1 reports the items where consensus was reached. Consensus was not achieved on thirteen items after three rounds. Comments made by the Delphi Panel during each round and reported anonymously provided additional information to describe the ratings and clarify issues. Three hundred and sixteen comments were received.

Following Kaufman's model (1982, 1992), the results were categorized as Organizational Efforts and Organizational Results. Organizational efforts were comprised of inputs and processes. Inputs were identified as the existing starting conditions affecting organizational activities and processes as the means, methods and procedures necessary for managing inputs. Organizational results were comprised of products and outputs. Products were defined as the internal results accomplished through the application of inputs and processes; outputs were the products the organization delivered to external clients.

By consensus of the Delphi Panel, the most critical characteristic of a state university extension system which had internationalized was the output or end product of clientele who developed a fundamental understanding of global and national interdependence. Educational programming efforts

having high importance to internationalization included programs that help clientele understand complex worldwide issues, programs that train local business persons for participation in international markets and interdisciplinary international experiences for key leaders. The Delphi Panel placed high importance on targeting commodity groups for public policy education on global decision making and rural clientele for education on the international marketplace.

Critical Elements

Five critical elements were identified by the Delphi Panel as being present in an internationalized state university Extension system:

- Clientele develop a fundamental understanding of global and national interdependence.
- Extension educational programs within the U.S. stress the impact of international economic forces on agricultural markets.
- Extension educators incorporate international perspectives into on-going activities.
- Extension faculty/agents recognize the relationship between basic international issues and the Extension mission.
- Personnel evaluation systems recognize international efforts.

The absence of any one of these critical elements would mean that the Extension system could not be considered to be internationalized. An internationalized state university Extension system would exhibit other important characteristics as described in Table 1. Not all the important characteristics identified by the Delphi Panel need to be present for the Extension system to be considered to be internationalized, but many are likely to be evident. Each important characteristic provides a building block, process or programming goal which will enable the Extension system to develop and maintain the five critical elements identified.

Conclusions and Implications

The study brought greater clarity and focus to the definition of internationalization of an Extension system. Internationalization was not seen as a fourth dimension: teaching, research, service and international efforts. Instead, successful internationalization efforts were identified as integrating global perspectives into the basic mission and mandate of Extension. Using the definition of university internationalization developed by Henson and Noel (1989) as a starting point, a three-part definition is proposed for discussion and debate. The definition is based on results of the current study and reflects the five critical elements identified.

Internationalization of Extension is the incorporation of international dimensions, content and considerations into Extension teaching, research, and service to enhance their relevance in an increasingly interdependent world. Participation in Extension educational activities assist clientele to develop a fundamental understanding of global interdependence and international economic forces as they relate to the issue areas within Extension's mission.

Institutional commitment is evidenced by the development of a structure and capacity to support staff development and reward accomplishments.

Poston and O'Rourke (1991) reported 80% of Extension directors indicated their state had achieved either a low level or had not achieved any level of globalization. For these Extension systems, internationalization will represent a significant organizational change. Identification of characteristics essential to an internationalized Extension system can assist Extension leaders and university administrators to identify and focus available resources where the greatest impact or change can be realized. A clear sense of direction, strong leadership in internationalizing and enthusiasm from leaders of the organization will help to ensure concerted and sustained action. Policy and resource decisions such as the incorporation of fiscal support into the ongoing Extension budget and placing a person "in charge" of internationalization to support and coordinate Extension program and activities are necessary implementation strategies. Assessment must focus on the outcomes achieved. Organizational change is a slow and often discontinuous process in a complex organization. Ongoing assessment of the progress being made will be necessary.

One outcome of the current study was the generation of additional questions and avenues for research. Research in the area of internationalization of Extension has been limited and it is hoped that the results of the current study have raised additional questions. Suggestions for further study are illustrative of the types of problems yet to be addressed. Replication of the current study is suggested. Other issues to be explored include: Can the factor(s) which stimulated an uninvolved Extension system to change and begin the process of becoming internationalized be identified? What are the societal impacts of an internationalized state Extension system? What characteristics do state Extension systems have which by reputation are considered internationalized exhibit? How do these characteristics compare with the five identified by the current study?

In closing, a comment made by one of the Delphi Panel members is appropriate. The panel member indicated "Internationalization should not be viewed as a fourth dimension: teaching, research, service and international. Instead successful internationalization efforts will integrate global perspectives into the basic mission and mandate of Extension".

References

- Altschuld, J.W. (1993). Delphi Technique. Lecture, evaluation methods: Principles of needs assessment II. The Ohio State University, Columbus, Ohio.
- America 2000. (1990). Washington, D.C.: U.S. Department of Education.

- Andrews, Mary P. and Michael Lambur. (1986). *International programming in the cooperative extension system:* an eleven state survey of organizational capacity and field staff attitudes and processes. A study by the Cooperative Extension Systems of Utah, Georgia, Rhode Island and Michigan and the consortium for international cooperation in higher education.
- Arum, S. and Van de Water, J. (1992). The need for a definition of international education in U.S. universities. In C.B. Klasek (Ed.), *Bridges to the future: strategies for internationalizing higher education* (pp. 191-203). Carbondale, Illinois: Association of International Education Administration.
- Dlebecq, A. L., Van de Ven, A.H., & Gustafson, D.H. (1975). *Group techniques for program planning*. Glenview, IL: Scott, Foresman, and Co.
- Dalkey, N.C., Rourke, D.L., Lewis, R., Snyder, D. (1972). *Studies in the quality of life*. Lexington, Massachusetts: Lexington Books.
- ES-USDA. (1989, October). *Going global cooperative extension system*. Washington, D.C.: United States Department of Agriculture.
- ES-USDA. (1989, April). *Global perspectives for extension*. Washington, D.C.: Extension Service, USDA.
- Henson, J.B., Noel, J.C., Gillrad-Byers, T.E. & Ingle, M.D. (1990, June). Internationalizing U.S. universities: preliminary summary of a national study. *Proceedings of internationalizing U.S. universities (Appendix B)*. Pullman, Washington: International Program Development Office of Washington State University.
- Henson, J.B. and Noel, J.C. (1989). Faculty and the internationalization of the agricultural education curriculum for the year 2005. In *Educating for a global perspective: international agricultural curricula for 2005* (pp. 19-26). Washington, D.C.: The North Central Curricular Committee Project.
- Henson, J.B., Noel, J.C., Gillrad-Byers, T.E. & Ingle, M.D. (1991, May). Internationalizing U.S. universities: preliminary summary of a national study. (Occasional Paper #7) Pullman, Washington: International Programs, Washington State University.
- Hughes, Matthew. (1993). Career-oriented program activities and learning experiences that promote achievement of middle-grade education goals. Unpublished doctoral dissertation, The Ohio State University, Columbus, Ohio.
- Ingle, M.D. (1990). Conference proceedings-internationalizing U.S. universities: a time for leadership. Pullman, Washington: International Program Development Office of Washington State University.
- Ingle, M.D. & Gage, J. D. (1990). Conference proceedings internationalizing U.S. universities: at time for leadership.
 Appendix B. Pullman, Washington: International Program Development Office, Washington State University.
- Kaufman, R. (1992). *Mapping educational success*. (pp. 28-46) Newbury Park, California: Corwin Press, Inc.

- Kaufman, R. (1982). Means and ends Needs assessment, needs analysis and front end analysis. *Educational technology*, 22 (11), 33-34.
- King, D.R. & Martin, R.A. (1991). *Internationalization of the post-secondary agriculture curriculum*. Conference Proceedings Seventh Annual Meeting of the Association for International Agricultural and Extension Education. St. Louis, Missouri.
- Knox, A.B. (1987). International perspectives on adult education. (Information Series No. 321). Columbus, Ohio: National Center for Research in Vocational Education.
- Linstone, H.A. & & Turoff, M. (1975). *The Delphi method: Techniques and applications*. Reading, MA: Addison Wesley Publishing.
- Patton, Michael Q. (1984, September/October). Extension -A Citizen of the World. *Journal of Extension*, XXII, 37-44.
- Ping, C. (1990, June). Internationalizing U.S. universities: preliminary summary of a national study. *Proceedings of internationalizing U.S. universities*. Pullman, Washington: International Program Development Office of Washington State University.

- Poston and O'Rourke. (1991, November). *Globalization and cooperative extension, final report: November 1991* (Publication 91-53). Washington State University: Social and Economic Sciences Research Center (SESRC).
- Rosson, C.P. & Sanders, L.D. (1991, Summer). Extension in a global context. *Journal of Extension*, XXIX, 21-23.
- Skinner, G. (1991, June). Extension's role in linking visions and global opportunities. Speech to the American Home Economics Association Extension Section, Twin Cities Conference.
- Somersan, A. (1992). The realities of globalization, implications for extension. 1992 McDowell Lecture, November 18. Pennsylvania State University.
- Ulschak, F.L. (1983). *Human resource development: The theory and practice of needs assessment.* (pp. 111-131) Reston, VA: Reston Publishing Company, Inc.
- York, E.T. (1984, November). 1984 Seaman A. Knapp memorial lecture: A major international dimension for U.S. colleges of agriculture - an imperative. Paper presented at the Annual Meeting of National Association of State Universities and Land-Grant Colleges, Denver, Colorado.

Reviewers for 1997

We wish to achknowledge with thanks the services of the following reviewers who helped with our peer-review process during the 1997 year:

Thomas Andre *Iowa State University*

Deborah L. Bainer
Ohio State University - Mansfield

Mary Bendixon-Noe Ohio State University - Newark

> Teresa Benedetti Ohio State University

Connie Bowman

Ohio State University - Lima

Susan Brookhart

Duquesne University

Charlene Czerniak

University of Toledo

Cheryl Didham

Baldwin-Wallace University

Janice Eitelgeoge *Mt. Vernon Nazarene College*

Louise Fleming Ashland University

Mary Ann Flowers
Cleveland State University

Christine Fox *University of Toledo*

Tom Ganser University of Wisconsin - Whitewater Chris Halon
Ohio State University - Mansfield

Susan Hegland Iowa State University

Elizabeth Johnson

Eastern Michigan University

Becky Kircshner Ohio State University

Ruth Koskela University of Wisconsin - Whitewater

Gene Kramer

American Dental Association

Kevin C. Larkin American Dental Association

Greg Marchant

Ball State University

Joy McCullough Trinity Western University

> Kim Metcalf Indiana University

A. William Place University of Dayton

Emily Rodgers

Ohio State University

Adrian Rodgers
Ohio State University

Mary Ellen Schmidt Ohio State University - Mansfield

E. Matthew Schulz American College of Testing

Janet Sheehan Norther Illinois University

Sonja Smith
Mt. Vernon Nazarene College

Terry Stahler West Chester University

Kirk Swortzel
Kutztown University

Joan Timm

University of Wisconsin - Oshkosh

Anthony Truog University of Wisconsin - Whitewater

> Joan Turner University of Arkansas

Elizabeth Wilkins-Canter Eastern Illinois University

E. Jane Williams *Ohio State University*

Donald A. Williams Ohio State University - Lima

Benjamin D. Wright University of Chicago