

Stanenco, J.D. 1991. The personal journal as a learning and evaluation tool in geology field trip courses. *Journal of Geologic Education* 39:204-205.

Wehner, D.J. 1993. Writing assignments for horticulture courses. *HortTechnology* 3:456-458.

Zimmerman, A. P. 1992. Laboratory assignments in writing-across-the curriculum. *NACTA Jour.*36:7-10.

Globalization of the Learning Environment: Results of a Baseline Study of Selected Indicators of Globalization at North Central Colleges of Agriculture

David Acker¹ and Shelley Taylor²
International Agriculture Programs
Iowa State University, Ames, IA 50011-1050

Abstract

A research project on the globalization of learning environments for students at north central U.S. colleges of agriculture was conducted in 1998. Findings for a one-year period included: 1) over 1,000 students participated in study and work abroad; 2) over \$300,000 in study abroad scholarship money was available to students through their colleges of agriculture; 3) over 2,500 international students studied at these colleges; 4) few colleges require the study of another language; 5) 1 college offers a degree and 4 colleges offer a major or secondary major with a significant focus on global dimensions; and 6) over 1,000 faculty and staff traveled to other countries.

Introduction

In the late 1980s, the North Central Curricular Committee Project brought together senior scholars and those charged with curricular responsibilities to develop an agenda for increasing the international focus in agricultural curricula. One significant output of their work was a conference and proceedings entitled, "Educating for a Global Perspective: International Agricultural Curricula for 2005." Dr. Duane Acker, one of the contributors to the dialogue, set forth a challenge when he stated, ". . . any college of agriculture curriculum today or in the future must be international in concept and content" (The North Central Curricula Committee Project, 1989).

This paper presents some of the results of a research project undertaken in 1998 pertaining to the Globalizing Agricultural Science and Education Programs for America (GASEPA) initiative of the Board on Agriculture,

National Association of State Universities and Land-Grant Colleges. The goals of the research were to 1) test a globalization baseline survey instrument; 2) collect data on the current status of globalization at north central region colleges of agriculture; and 3) establish an initial data set as a baseline for monitoring future progress in the globalization of research, extension, and teaching programs. The results reported in this paper focus specifically on the globalization of learning environments under goal two of the research project.

The paper builds on the notion that quality education includes the globalization of students' learning environment. Susan Berresford, President of the Ford Foundation, explains that globalization "describes the rapid and accelerating worldwide movement of technology, goods, capital, people, and ideas" (Ford Foundation, 1997).

Building on the progress of the last decade, U.S. colleges of agriculture need to dramatically expand such offerings to infuse a global perspective into the undergraduate learning experience. Moreover, globalization of agriculture programs may well be a key pathway to continuous improvement of quality at U.S. land grant institutions in the Twenty-first Century (Acker and Scanes, 1998). The GASEPA initiative responds to growing concern that public universities must be more effective in preparing clientele to succeed in a globally interdependent work and living environment.

The vision as outlined by the GASEPA initiative (National Association of State Universities and Land Grant Colleges, 1997) is "to develop globally competent stakeholders, faculty, and students in the U.S. food, agriculture, and natural resource sectors who live, compete, and work well in an ever-dynamic and interdependent world community." Furthermore, the stated mission of GASEPA (National Association of State Universities and Land Grant Colleges, 1997) is that an international dimension is incorporated into teaching, research, and extension programs so that 1) our

¹Associate Professor

²Program Assistant

graduates understand and appreciate the global environment in which agriculture functions, 2) our research and extension programs have access to the best ideas and technologies regardless of where they are generated or developed, and 3) the above strengthen U.S. international competitiveness within a sustainable global agricultural system.

Methods

A survey with 11 questions was sent to representatives of the North Central International Agriculture Directors group at 14 colleges of agriculture. The survey solicited, among other things, data on numbers of students and faculty traveling abroad, amount of funding available for study abroad scholarships, foreign language requirements, availability of majors and minors related to international agriculture, and the number of foreign students on campuses. Respondents were asked to utilize data from a recent 12-month period in answering the questions. Some elected to report on the previous fiscal year while others provided data for the 1997 calendar year. All colleges surveyed responded; however, not all colleges provided data on each survey item. Data were analyzed at Iowa State University. For purposes of this paper, only data dealing with student-oriented learning environments are presented. Limitations of the study include the following:

- 1) The indicators were selected by the authors as a subset of globalization indicators developed as part of the GASEPA initiative. They were selected on the basis of their contribution to the understanding of the current status of globalization in colleges of agriculture and on the practicality of data collection. Data such as the extent to which curricula have been infused with an international dimension are much harder to quantify and collect, yet may be better indicators of the status of globalization within institutions (Wilson, 1998, personal communication).
- 2) Only 14 colleges of agriculture were surveyed in one region of the United States. No attempts were made to survey a larger group of colleges nor to extrapolate the results to a larger group of colleges.

Results and Discussion

The international experience of faculty is an important cornerstone of globalized student learning environments. The number of north central college of agriculture faculty and staff traveling to other countries during a recent 12-month period ranged from 3 to 170 per college (Figure 1). In total, over 1,000 trips were made to other countries. Among respondents, Iowa State, Purdue, Minnesota, and Michigan State all had over 100 faculty and

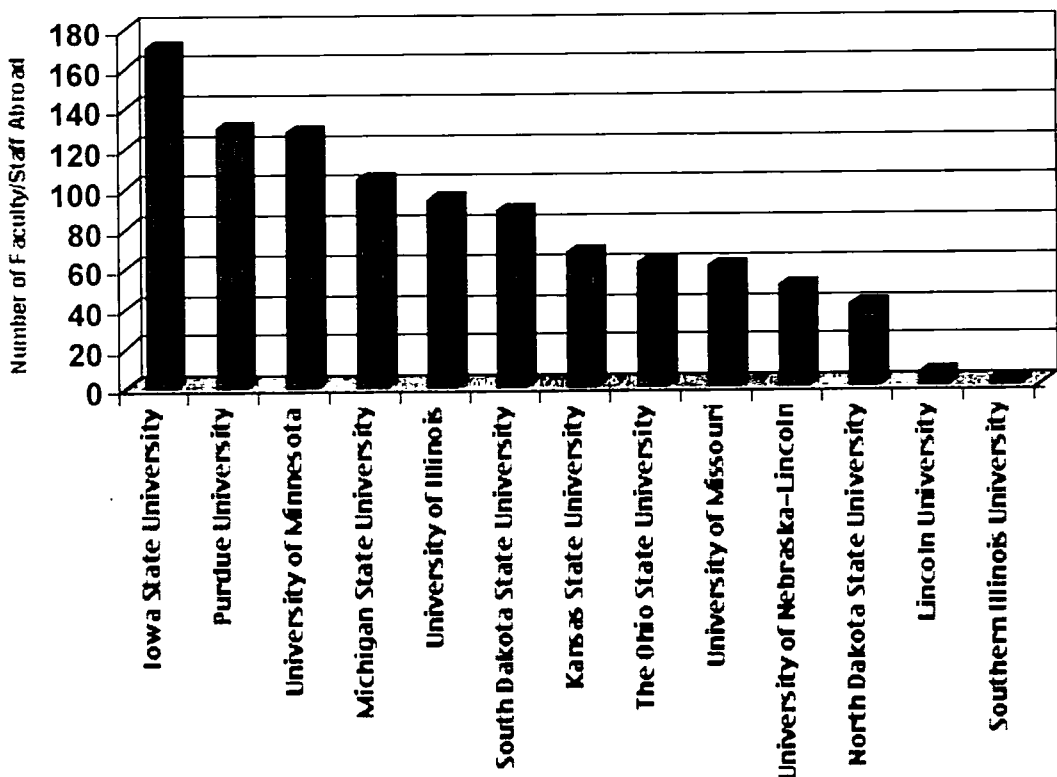


Figure 1. Number of faculty and staff traveling to other countries.

staff traveling to other countries. Future surveys also should consider collecting information to permit reporting on the percent of faculty and staff traveling to other countries, the length of stay, the primary purpose of the travel, and the impact of the international experiences in relation to students' future involvement.

North central colleges of agriculture are making a concerted effort to increase the number of students who

study and work abroad. Over 1,000 students (3% of students in reporting colleges of agriculture) traveled abroad for work or study during the reporting period. Among respondents, Michigan State, Iowa State, Minnesota, Purdue, Illinois, Ohio State, and Missouri led the region in the number of students who participated in study and work abroad.

(Table 1). Future surveys should attempt to disaggregate by length of stay abroad, to learn more about the intensity of cross-cultural interaction and the impact of the study abroad experience.

Table 1. Work and Study Abroad Participants as a Percentage of Total Enrollment in Colleges of Agriculture.

University	Number of Students in College of Agriculture ^a	Number of Graduate and Undergraduate Students Who worked or Studied Abroad	Percent of College Enrollment
University of Illinois	2,641	73	3
Iowa State University	3,336	173	5
Kansas State University	2,373	8	1
Lincoln University	140	6	4
Michigan State University	3,463	305	9
University of Minnesota	2,017	129	6
University of Missouri	2,471	129	5
University of Nebraska-Lincoln	1,975	27	1
North Dakota State University	840	21	3
The Ohio State University	3,124	60	2
Purdue University	3,061	91	3
South Dakota State University	1,978	2	1
Southern Illinois University	1,031	11	1
University of Wisconsin-Madison	3,384		
TOTAL	31,834	1,035	3

^aFall, 1997 enrollment figures. Source: Food and Agricultural Education Information System, 1998

Students are concerned about how to pay for study abroad. Over \$300,000 was available to college of agriculture students in the north central region through their colleges of agriculture (Figure 2). Michigan State, Ohio State, Iowa State, Illinois, Missouri, and Purdue led the region in the amount of funding available to students. Future surveys should attempt to collect data on scholarships available both within the college of agriculture and from the university, as scholarship funds for study abroad are administered only at the university level in some cases.

International students are well represented at all reporting institutions. Over 2,500 international students

studied at north central colleges of agriculture. The University of Wisconsin-Madison led the region with approximately 350 international students (Figure 3). Future surveys should attempt to disaggregate undergraduate and graduate international students. Universities might benefit from analytical work on barriers to and successful methods of effectively integrating international students into the fabric of those institutions to take advantage of the diversity provided by these students.

Few colleges of agriculture require the study of another language. Ten colleges reported that they have no foreign language requirement (Table 2).

Table 2. Colleges of Agriculture that Do Not Require Foreign Language Study for Graduation.

No Foreign Language Requirement for Graduation

Iowa State University
Kansas State University
Lincoln University
Michigan State University
North Dakota State University
Purdue University
Southern Illinois University
University of Minnesota
University of Missouri
University of Nebraska-Lincoln

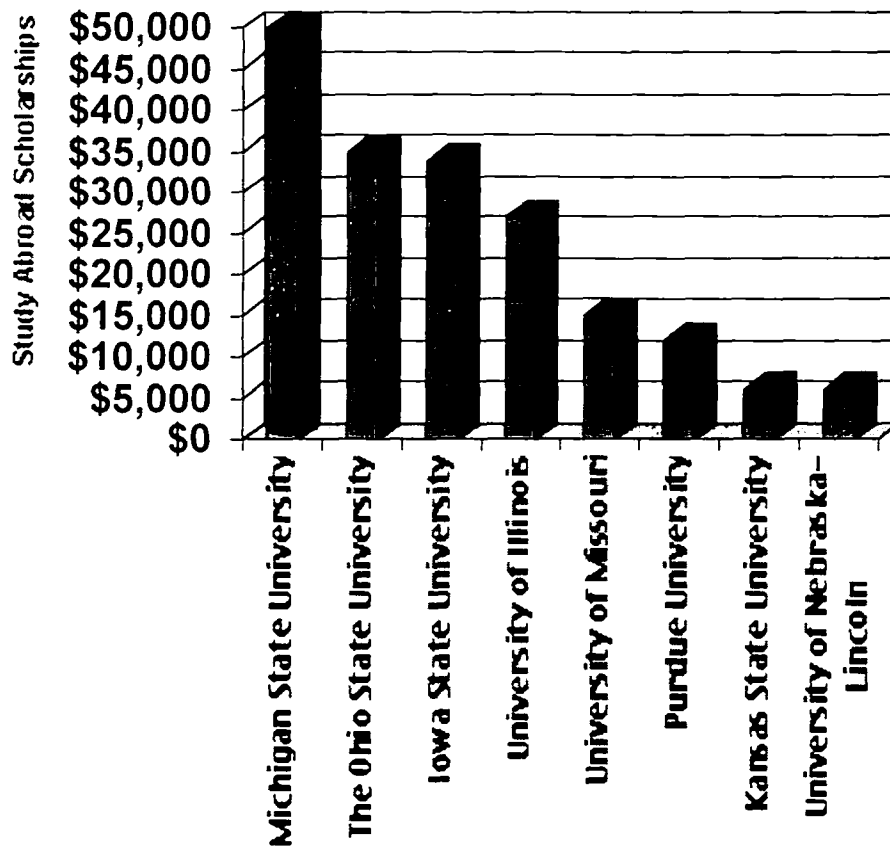


Figure 2. Funding made available by colleges of agriculture for study abroad scholarships at selected north central universities.

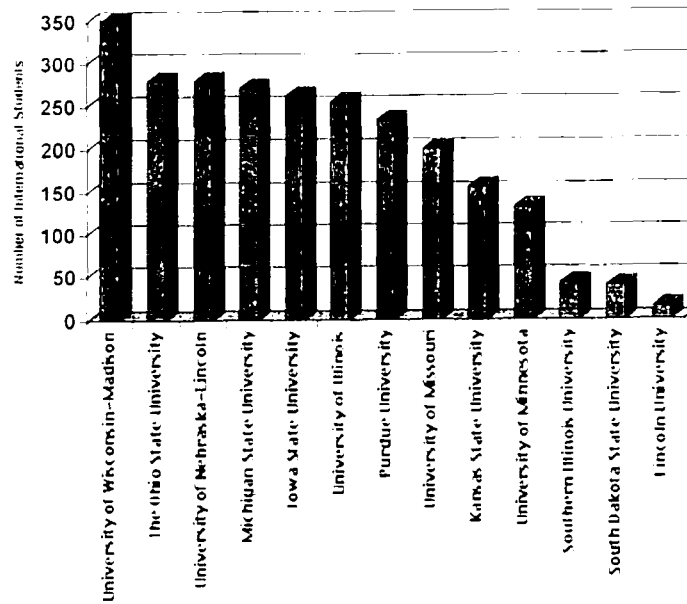


Figure 3. Number of international students enrolled at north central colleges of agriculture

Many students want to pursue a degree, a major, or a minor related to international studies or international agriculture. One of the colleges offers a degree and four offer a major or

secondary major with a significant focus on global dimensions. The names utilized by respondents' institutions for majors, minors, and certificates are listed in Table 3.

Table 3. Majors, Minors, and Certificates Offered by Colleges of Agriculture.

Category	Name
Degree	International Agriculture and Natural Resources
Major	International Agriculture (secondary major)
	International Studies (secondary major)
	International Studies with an emphasis in International Agriculture
Minors	International Agriculture (found at four colleges)
	Socio-economic Development
	International Studies
	International Affairs (emphasis in International Agriculture)
Certificates	Global Food Security
	Global Studies Program

Summary

The survey used to collect these data was a blunt instrument at best. The recommendations received for improvement of the survey instrument should help other researchers as they attempt to conduct similar surveys. The trade-off between level of specificity of data requested and efficiency for respondents was, to varying degrees, made in favor of the latter. The research benefited from a 100% response rate.

The north central region colleges of agriculture have an impressive array of efforts under way to globalize the learning environment. However, there is considerable variation among colleges. This variation lends itself to mutually beneficial sharing of experiences and program ideas among colleges.

Data in this study provide a snapshot of the current

state of globalization in north central colleges of agriculture. Major findings for a 1-year period included: 1) over 1,000 students participated in study and work abroad; 2) over \$300,000 in study abroad scholarship money was available to students through their colleges of agriculture; 3) over 2,500 international students studied at these colleges; 4) few colleges require the study of a foreign language; 5) 1 college offers a degree and 4 colleges offer a major or secondary major with a significant focus on global dimensions; and 6) over 1,000 faculty and staff traveled to other countries. This baseline can serve as a benchmark for measuring progress toward the implementation of the GASEPA initiative.

Literature Cited

Acker, D.G. and C.G. Scanes. 1998. The Case for Internationalizing Colleges of Agriculture. *Jour. of International Agricultural and Extension Education* 5 (1):59-62.

Food and Agricultural Education Information System (FAEIS). 1998. Fall 1997 Enrollment for Agriculture, Renewable Natural Resources and Forestry. Available from Food and Agricultural Education Information System, Texas A&M University, College Station, TX 77843-2124.

Ford Foundation. 1997. Annual Report. Available from Ford Foundation Headquarters, 320 East 43 Street, New York, NY, 10017.

National Association of State Universities and Land Grant Colleges, International Agriculture Section. 1997. *Globalizing Agricultural Science and Education Programs for America*. Available from National Association of State Universities and Land Grant Colleges, International Agriculture Section, 1307 New York Avenue, NW, Suite 400, Washington, DC, 20005-4701.

North Central Region Curricular Committee Project. 1989. *Educating for a Global Perspective: International Agricultural Curricula for 2005*. Available from Higher Education Programs, Office of Grants and Program Systems, Cooperative Research, U.S. Department of Agriculture, Washington, DC.

The Use of Time by Undergraduate Students

Amy K. Gortner¹ and Carl R. Zulauf², Department of Agricultural, Environmental, and Development Economics, The Ohio State University, Ag. Admin. Bldg., Room 235
2120 Fyffe Road, Columbus, OH 43210

Abstract

Data on the use of time were collected via a one-week time diary from 136 students enrolled in three agricultural economics courses at Ohio State University. Average hourly use of time per week for these students was:

sleeping (55.3), studying (21.3), planned recreation/leisure (19.0), in-class (16.4), job (12.3), travel (10.7), TV (10.3), eating (8.1), personal hygiene (7.1), student activities (3.6), telephone (1.4) and other (2.6). This time profile generally is similar to that of the American population, except that "being a student" is the primary job. Time spent on academics (in-class and studying) exceeded other uses of time, excluding sleep. This suggests school was a top priority. Studying, recreation, job, TV, and student activities exhibited the most variation among the respondents. Advisors need to help students understand incongruities that exist between their objectives and allocation of time. No significant bivariate relationships were found between any time-use activity and quarter GPA. Thus, the relationship between time use and academic performance, if it exists, is a complex interaction of

¹Graduate student in the College Student Personnel Program, Dept. of Educational Leadership, Miami Univ., Ohio.

²Professor of Agricultural Marketing and Policy, Dept. of Agric., Environmental and Development Economics, The Ohio State Univ.

The authors thank Bernard Erven, Richard Meyer, Larry Miller, and L.H. Newcomb for their comments and suggestions.