1995

Internationalization of the curriculum as perceived by undergraduates in the College of Agriculture at Iowa State University

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Internationalization of the curriculum as perceived by undergraduates
in the College of Agriculture at Iowa State University

by

Sherry Lynn Sammons

A Thesis Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE

Department: Agricultural Education and Studies

Signatures have been redacted for privacy

university
Ames, Iowa

1995
TABLE OF CONTENTS

LIST OF FIGURES v

LIST OF TABLES vi

CHAPTER I. INTRODUCTION 1

  Statement of the Problem 2
  Purpose of the Study 3
  Need for the Study 4
  Implications and Educational Significance 6
  Summary 7
  Operational Definitions 7

CHAPTER II. REVIEW OF LITERATURE 9

  The College Curriculum and Curriculum Reform 9
    Internationalization of the Curriculum Defined: What 12
    Rationale for Internationalizing the Curriculum: Why 15
    Keys to Internationalizing the Curriculum: How 18
    Internationalizing the Curriculum of Undergraduates in Agriculture: Who 25
  Summary 29
CHAPTER VI. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 87

Summary 87

Purpose 88

Methodology 89

Findings 90

Conclusions 93

Recommendations 94

Recommendations for Further Research 96

Implications and Educational Significance of the Study 96

REFERENCES 98

ACKNOWLEDGEMENTS 104

APPENDIX A. HUMAN SUBJECTS REVIEW COMMITTEE APPROVAL FORM 106

APPENDIX B. COVER LETTER AND DATA COLLECTION INSTRUMENT 108

APPENDIX C. REMINDER POSTCARD 118

APPENDIX D. STUDENTS' WRITTEN COMMENTS 120
| Figure 1. | Country/region visited by students in the College of Agriculture at Iowa State University | 45 |
| Figure 2. | Foreign languages studied by students in the College of Agriculture at Iowa State University | 48 |
| Figure 3. | Foreign language fluency of students in the College of Agriculture at Iowa State University | 49 |
| Figure 4. | Location of local international activities as reported by students in the College of Agriculture at Iowa State University | 50 |
| Figure 5. | Methods used by instructors in the College of Agriculture to infuse a global perspective into the curriculum as reported by students in the college | 51 |
| Figure 6. | Barriers to study abroad as indicated by students in the College of Agriculture at Iowa State University | 54 |
| Figure 7. | Barriers to participation in travel courses as indicated by students in the College of Agriculture at Iowa State University | 55 |
| Figure 8. | Barriers to participation in international internship programs as indicated by students in the College of Agriculture at Iowa State University | 56 |
LIST OF TABLES

Table 1. Distribution of respondents by age 38
Table 2. Distribution of respondents by classification 39
Table 3. Distribution of respondents by primary major, secondary major, and minor 40
Table 4. Distribution of respondents by size of hometown 42
Table 5. Distribution of respondents by home state/country 43
Table 6. Distribution of respondents by time spent abroad 46
Table 7. Distribution of respondents by activity abroad 46
Table 8. Ratings on the amount of international content in courses in the College of Agriculture by department as perceived by students in the college 52
Table 9. Means, modes, standard deviations, and percentages of perception statements regarding the internationalization of the curriculum in the College of Agriculture at Iowa State University as reported by students in the college 58
Table 10. Gender differences in perceptions regarding the internationalization of the curriculum as reported by students in the College of Agriculture at Iowa State University 60
Table 11. Analysis of variance regarding perceptions on internationalization of the curriculum by classification of students in the College of Agriculture at Iowa State University 61
Table 12. Analysis of variance regarding perceptions on internationalization of the curriculum by place raised of students in the College of Agriculture at Iowa State University 62
Table 13. Analysis of variance regarding perceptions on internationalization of the curriculum by home state or country of students in the College of Agriculture at Iowa State University 63
Table 14. International experience differences in perceptions regarding the internationalization of the curriculum as reported by students in the College of Agriculture at Iowa State University 64
Table 15. Foreign language study differences in perceptions regarding the internationalization of the curriculum as reported by students in the College of Agriculture at Iowa State University 65
Table 16. Involvement in local international activities differences in perceptions regarding the internationalization of the curriculum as reported by students in the College of Agriculture at Iowa State University 65
Table 17. Participation in study abroad differences in perceptions regarding the internationalization of the curriculum as reported by students in the College of Agriculture at Iowa State University 66
Table 18. Participation in on-campus international activities differences in perceptions regarding the internationalization of the curriculum as reported by students in the College of Agriculture at Iowa State University 67
Table 19. Participation in work abroad differences in perceptions regarding the internationalization of the curriculum as reported by students in the College of Agriculture at Iowa State University 68
CHAPTER I. INTRODUCTION

The internationalization of the curriculum at all educational levels is an issue that is facing institutions across the country. Our ever-increasing global society demands it. A growing proportion of today's students will either work abroad, work for a company that has interests abroad, or work for a company that experiences major competition from abroad (Finley and Price, 1994). Events that occur half a world away affect farmers in Iowa and stock brokers in New York. One needs only to turn on the television to realize the impact of world events on the average American. Harari (1992) gave the following rationale for the internationalization of undergraduate education:

Since the students we now help educate will live in a highly interdependent and multicultural world it is obvious that irrespective of the narrower academic and professional skills acquired by these students they will need also to acquire a reasonable degree of knowledge and skills with respect to the inter-connectedness of peoples and societies and cross-cultural communication. (pp. 53-54)

Today's students will be tomorrow's leaders in our interdependent world, and it is the responsibility of the curriculum of higher educational institutions to prepare them for the future.
Statement of the Problem

American students' ignorance of other countries and cultures has been well documented. Lambert (1993) gave one example of young Americans' ignorance of world geography, people, and events through the results of a 1988 Gallup survey of 10,820 18-to 25-year olds in ten countries. "The survey found that Americans were not only absolutely, but comparatively ignorant...ranking below Sweden, West Germany, Japan, France, and Canada, and on a par with the United Kingdom. Only Italy and Mexico scored lower" (p. 309). The following were included among the results of a nationwide study of undergraduates' knowledge of the world:

- Seniors achieved a mean score of 50.5 questions correct out of 101 on the test, showing a considerable lack of knowledge on topics felt important by the assessment committee.
- Significant score differences occurred among seniors in different fields of study. History majors scored highest (59.3), while education majors - the teachers of tomorrow - scored lowest (39.8).
- Fewer than one in twelve seniors had participated in formal programs abroad, ...although almost 65 percent reported having been in other countries (mostly Mexico, Canada, and those of Western Europe).

(Barrows, Clark, and Klein, 1980, pp. 20-22)
In a major study of undergraduate student enrollment in foreign languages, international studies, and study abroad programs, Lambert (1989) reported that while students in the humanities or social sciences took an average of two to three courses in international or area studies or foreign languages, those in science, engineering, education, and health-related fields took an average of fewer than two such courses.

These results seemed especially troubling considering the fact that these students will need to be able to function in an increasingly global society. Groennings (1990) stated, "For today's undergraduates, who will be in their early thirties as we enter the next century, little seems more certain than the quickening impact on their lives of the rest of the world" (p. 13). One fact seems to be clear, colleges and universities must do a better job of preparing students for the future. Atwell (1990) asserted that "the main job of combatting the ignorance of international history and other cultures is the responsibility of academic leaders at individual colleges and universities" (p. 6).

Purpose of the Study

The overall purpose of this study was to assess the perceptions of undergraduate students regarding the internationalization of the curriculum in the College of Agriculture at Iowa State University. The specific objectives of the study were:

1. To identify undergraduate students' perceptions regarding the internationalization of the College of Agriculture curriculum.

2. To assess student involvement in international activities.
3. To identify possible barriers to student participation in international activities.

4. To identify demographic characteristics of participants in the study.

Need for the Study

A common goal of undergraduate education is to assure that all students, regardless of disciplinary major, acquire literacy in science and technology, an understanding of humane and ethical values, an awareness of the intellectual, historical, and artistic foundations of our culture, and a sensitivity to other cultures and to international concerns [italics added].

This sentence can be found in the second paragraph of the Mission Statement of Iowa State University (1989). One may ask what the university is doing to ensure that its undergraduate students acquire "a sensitivity to other cultures and to international concerns." When listening to various speeches or reading about departmental accomplishments in internationalization it is important not to confuse appearances with reality. The October, 1990, report of the Ad Hoc Committee on the Internationalization of Iowa State University explains this distinction:

... that 80 percent of the students in a particular department are from overseas does not necessarily point to internationalization. Winning a one-million dollar contract to help an African country build roads is not
internationalization. Researching tropical soils is not internationalization. Training exporters to sell their meat processing equipment in the Far East is not internationalization. Doing ten-million dollars worth of contract work for a governmental agency or other institution dealing with overseas countries is not internationalization. All of these activities are noteworthy and productive, but by themselves they do not constitute internationalization as the term is increasingly understood. (Whiteford, 1990, p. 8)

The Mission Statement of the College of Agriculture also contains a reference to internationalization: "The College believes students should learn to make informed decisions, to pursue new knowledge, and to become engaged in activities that strengthen their ability to participate in an increasingly global society" (1990) [italics added]. Once again, one must ask what the College of Agriculture is actually doing to ensure that its students can "participate in an increasingly global society."

Several studies concerning the internationalization of the curriculum have been conducted recently in the College of Agriculture. Elbashir (1991) surveyed Iowa young farmers regarding the role of international agriculture in agricultural education in Iowa. Akpan (1994) studied the perceptions and activities of agriculture education teachers in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum. King (1991) surveyed faculty members in the College of Agriculture about their perceptions regarding the infusion of a global perspective into the curriculum. Both Akpan and King recommended that a study be conducted to determine
the perceptions of students in the College of Agriculture concerning the internationalization of the curriculum. It certainly seems that students might have something to say about their education.

In King's (1991) study many faculty members indicated that they were internationalizing their courses, but has this had any impact on their students? Why do only one percent of the students at Iowa State University study abroad as part of their education (Whiteford, 1990)? Why is it that when the College of Agriculture holds interviews for exchange programs, barely enough students apply to fill the openings? How do students feel about studying a foreign language as part of their university education? The answers to these questions could help the College of Agriculture develop a plan for internationalizing the curriculum. Such an effort could also provide a model for other colleges to follow in gathering similar information from their students.

Implications and Educational Significance

The potential implications of this study for education in agriculture are significant. The findings from the study could provide some clues as to the feelings of undergraduate students in agriculture concerning internationalization of the curriculum. The study results could also lead to recommendations as to how the College of Agriculture should proceed with its internationalization efforts, as well as how to get more students involved in the existing international activities available on campus. The College is continually revising its curriculum, and should do so in order to best meet the needs of students, as well as
business and industry. Meeting the future needs of students, business, and industry will involve weaving international themes throughout the curriculum.

Summary

Internationalization of the curriculum is an issue that is being addressed by institutions of higher education across the United States. The mission statements of Iowa State University and the College of Agriculture both include references to internationalization; however, it is not clear what is actually being done to make the education students receive more internationalized. Several studies have documented American students' lack of knowledge about the world, and researchers in the College of Agriculture at Iowa State University have recommended that a study of undergraduate students in the college should be conducted to determine their perceptions regarding the internationalization of the curriculum.

This study has important implications for the process of internationalizing the curriculum of the College of Agriculture at Iowa State University. It is expected that the results of this study will be useful to the college administrators and faculty in further examining the issue of internationalization of the curriculum.

Operational Definitions

For the purposes of this study, the following terms have been defined:

Curriculum: An intersection between the perceived learning needs of the individual students, the structure and evolution of knowledge conceived as disciplines and
tools for learning, and the changing realities, beliefs, values and ideologies of society (Skilbeck, 1990).

**Global education:** A system of learning in which the complex reality of global interdependence may be analyzed, better understood and evaluated (Nilles, 1982).

**Global understanding:** An awareness of nations beyond one's borders and of the issues that involve those nations and one's own. It is more than a knowledge (or cognitive) concept, it also involves feelings (affect) (Barrows, Klein, and Clark, 1981).

**Internationalization:** The incorporation of international contents, materials, and understandings into the teaching, research, and public service functions of universities to enhance their relevance in an interdependent world (Henson, Noel, Gillard-Byers, and Ingle, 1990).

**Perception:** An immediate judgement or process of knowing objectives, facts, etc., either by sense(s) or by thought. The ability to link what is sensed with past events in order to give meaning to situations as well as an awareness, feeling, and understanding of situations (Van Dalen, 1979).
CHAPTER II. REVIEW OF LITERATURE

The overall purpose of this study was to assess the perceptions of undergraduate students regarding the internationalization of the curriculum in the College of Agriculture at Iowa State University. The specific objectives of the study were to: 1) identify undergraduate students' perceptions regarding the internationalization of the College of Agriculture curriculum; 2) assess student involvement in international activities; 3) identify possible barriers to student participation in international activities; and 4) identify demographic characteristics of participants in the study.

The purpose of this chapter is to review the relevant literature concerning internationalization of the curriculum in order to present a theoretical framework and rationale for the study.

The College Curriculum and Curriculum Reform

Unfortunately, as Dressel (1971) indicated "most of the extensive writing about curriculum is irrelevant to the college level" (p. 2). However, it is possible to look at the history of curriculum and to speculate about the future. The first step in discussing curriculum is to come up with a suitable definition. Many would agree with the dictionary definition, "a fixed series of courses required in college for graduation or qualification in a major field of study" (Webster's New World Dictionary, 1982). Others, however, would insist that the curriculum is more encompassing. A broader definition of curriculum is "an intersection between the perceived learning needs of the individual
students, the structure and evolution of knowledge conceived as disciplines and tools for learning, and the changing realities, beliefs, values and ideologies of society” (Skilbeck, 1990, p. 39). Dressel (1971) also considered the question, "What is meant by curriculum?" (p. 22). He pointed out that "if the college curriculum is no more than structured courses in the accepted disciplines, then curriculum reform can be little more than a reshuffling of courses and requirements." However, he explained, "if, by contrast, the curriculum is the total college experience, then curriculum reform involves the collective planning of a coherent, cumulative program."

The idea of curriculum as the total college experience is a relatively new one. College in nineteenth and early twentieth century America usually meant studying the classical subjects in a strictly prescribed curriculum. As explained by Brubacher and Rudy (1968), in the colonial period,

there was no concept that the varying interests or professional plans of the individual student should be taken into account in constructing a curriculum. It was felt that there was a fixed and known body of knowledge, the 'liberal arts' as they had come down from antiquity via the Middle Ages, Renaissance, and Reformation. This constituted the absolute and immutable truth, and it was important that it be absorbed, not criticized or questioned, by every student. (p. 13)
This view of the college curriculum did not change much over the next century. Boyer and Kaplan (1977) explained,

to examine college course requirements between the time of the Revolution and the end of the Civil War would lead one to suppose that the Industrial Revolution, the rise of Jacksonian democracy, the conquest of the western territories, the emergence of a native American character and culture, the mounting importance and density of the city, the revolutions in agriculture and experimental science and engineering, and the overwhelming secularization of society were all occurring on some other planet. (p. 25)

While the preceding explanation of why the changes in society were not reflected in the college curriculum may seem humorous, it is apparent that institutions of higher learning at the time did not feel it was necessary to integrate societal changes into the curriculum. Even in 1926, it was reported that "not once in a century and a half of national history has the curriculum of the school caught up with the dynamic content of American life" (Rugg et al., 1969a, p. 3). In 1909, John Dewey wrote, "Whenever we have in mind the discussion of a new movement in education, it is especially necessary to take the broader, or social, view" (Dewey, 1990, p. 7). In 1926, the National Society for the Study of Education presented a statement on curriculum-making which stressed the fact that the curriculum must "be organized for the task of bringing [students] to a progressive understanding of their responsibility for social progress and of the problems,
practices, and institutions of social life" (Rugg et al., 1969b, p. 15). The 1946 Harvard report *General Education in a Free Society* stated that its "recommendations rest on a social fact: 'As Americans, we are necessarily both one and many, both a people following the same road to a joint future and a set of individuals following scattered roads as gifts and circumstances dictate'" (Boyer and Kaplan, 1977, p. 41).

A common thread among the literature dealing with curriculum is the premise that the curriculum should respond to changes in society in order to better prepare students for the future. The future is global. We are realizing more and more the truth in the words of the song, "It's a small world after all," and as a result, institutions of higher learning are scrambling to internationalize their curricula.

**Internationalization of the Curriculum: What, Why, How, Who**

Henson and Noel (1988) addressed the internationalization of colleges and universities by asking three questions: what? why? and how? The important question that was missing from their discussion is "who?" The remainder of this chapter is arranged according to these questions: What is internationalization of the curriculum? Why should the curriculum be internationalized? How should the curriculum be internationalized? Who will benefit from the internationalization of the curriculum?

**Internationalization of the Curriculum Defined: What**

Henson, Noel, Gillard-Byers, and Ingle (1990) defined internationalization of the university as "the incorporation of international contents, materials, and understandings
into the teaching, research, and public service functions of universities to enhance their relevance in an interdependent world" (p. 3). Harari (1992) described internationalization as "acquiring global awareness and an understanding of the diversity of cultures and societies on our planet" (p. 53). Arum and Van de Water (1992) found that definitions of international education could be described in two categories: One type discussed the ultimate purpose or rationale for people and programs involved in international activities and the other focused on the people and programs involved and how they were organized and structured. The authors offered their own rather ambiguous definition of international education as referring "to the multiple activities, programs, and services that fall within international studies, international educational exchange and technical cooperation" (p. 202). Kellogg (1984) referred to an international dimension to educational programs as "teaching and research conducted within American universities relative to states, societies, and cultures other than those of the United States" (p. 18).

A term that often has been used interchangeably with internationalization is globalization. Tye (1990) provided the following definition of global education:

Global education involves learning about those problems and issues that cut across national boundaries, and about the interconnectedness of systems -- ecological, cultural, economic, political, and technological. Global education involves perspective taking -- seeing things through the eyes and minds of others -- and it means the realization that while individuals and
In addition, Tye explained that "global education is a social movement and, as such, calls for changes in schooling that promote the attitudes, knowledge, and skills encompassed in the preceding definition...[and] for the infusion of a global perspective into all curriculum areas." Nilles (1982) defined global education as "a system of learning in which the complex reality of global interdependence may be analyzed, better understood and evaluated" (p. 18). While the preceding definitions vary greatly in content, one common idea is the inclusion of societal changes related to internationalization, or globalization, in the curriculum of educational institutions.

Lambert (1980) identified three components of an international perspective at the undergraduate level: (1) "Transcultural empathy -- the ability to imagine oneself in the shoes of someone else in another culture;" (2) information about other countries, "the heart of international studies;" and (3) "the disciplinary perspective, teaching students what to look for and how to organize use of the tools and extrapolation of a particular intellectual superstructure" (p. 14). Tonkin and Edwards (1981) described the following two goals in internationalizing the curriculum:

First, increasing the number and quality of programs, courses, and other opportunities for the study of international and global affairs; and second, infusing the entire undergraduate curriculum with a sense of the international and global, so
that a growing number of courses and programs, in whatever subject, can better reflect the realities of an increasingly interconnected world. (p. 6)

While it is obvious that various approaches to internationalizing the curriculum exist in the literature, there certainly exists a strong rationale for curriculum internationalization.

**Rationale for Internationalizing the Curriculum: Why**

There is little question that our daily lives are affected by and have an effect upon people around the world. Becker (1979) explained that "Volkswagens, Toyotas, radios, tea, bananas, Rotary clubs, churches, and a host of other products and organizations provide links between our hometowns and cities and towns the world over" (p. 35). Nilles (1982) stressed that global interdependence is "likely irreversible and increasingly imperative" (p. 16). Yet, American students' ignorance of other countries and cultures has been well documented (Barrows, Clark, and Klein, 1980; Lambert, 1993; Lurie, 1982; Pike and Barrows, 1979; Schechter, 1990). Rose Lee Hayden (1984), Executive Director of the National Council on Foreign Language and International Studies, wrote:

In theory, few oppose the arguments that our nation should possess an educational system producing at least a minimal cadre of experts about other peoples and cultures, as well as professionals in business and government who can transact negotiations across national borders; that we
should have scientists and technicians who can extend and share human knowledge on a global basis; and finally, that America must have citizens knowledgeable enough to support tough leadership decisions and policies in a dangerous and complicated world. But in fact such schools, experts, and citizens are precisely what we do not have. Thus few Americans appreciate the magnitude of their nation's many involvements in a very interconnected world. As a people our perception and vision of the world seem to stop at our shoreline. To be sure, we are aware of a 'they' out there, but we understand very little how 'they' interact with our lives, let alone how interdependent our world has become. (p. vii)

Mortimer Zuckerman (1988), editor of *US News and World Report* wrote, "America has been lulled by an oratory of blind optimism, as if God were an American. No longer can we lean on our national heritage in resources, geography, and population" (p. 68). Americans must be made more aware of the world around them. Tonkin and Edwards (1981) emphasized that "every citizen, not just the international specialists, must understand how our local and national concerns relate to the larger world and how present-day realities dictate a harmonizing of our own aspirations with those of other nations and peoples" (p. 6).

The editor of *Change Magazine* gave the rationale for internationalizing the curriculum an ominous sound. Bonham (1978) wrote, "America's young face a set of new national and international circumstances about which they have only the faintest of
notions. They are, globally speaking, blind, deaf, and dumb; and thus handicapped, they will soon determine the future directions of this nation" (p. 12). It is evident that the responsibility for rectifying this situation lies in the educational system through which these students pass. Groennings (1990) explained,

As the general purpose of education is to prepare students for the world in which they are living, there is a growing expectation that the curriculum must enlarge our students' understanding of the new international circumstances and of peoples and cultures beyond our borders. (p. 11)

Schechter (1990) provided the following rationales for internationalizing university curricula: 1) "Pragmatic reasons," for example, commercial advantages, the need to prepare students for the 21st century, and the need for an institution to be competitive with its peers; 2) "liberal and liberating rationales," for example, "the fact that exposure to international and cross-cultural issues opens students' minds to an entirely different world and the fact that international education is inherently interdisciplinary," providing one way to overcome the fragmentation of students' learning habits; and 3) "reasons connected with civic education," for example, giving students the necessary tools to make educated decisions about who should govern (p. 14). While many different rationales can be given for internationalizing the curriculum, Groennings (1990) provided an excellent summary when he wrote,
Today one of the most powerful forces external to the campus is the globalization of nearly everything, most obviously the economy, communications, and national security. It is such a fundamental change that one is tempted to propose, by lighthearted analogy and borrowing from geophysics, a plate tectonics theory of curricular change: the earth moves, the curriculum responds. (p. 12)

While Groennings "lightheartedly" compared the curricular change of internationalization to plate tectonics, institutions across the country are facing the challenges of just how to internationalize the curriculum.

**Keys to Internationalizing the Curriculum: How**

Every institution undergoing internationalization has a different method of going about the process. However, several factors, or "keys", emerge that are prevalent across the institutional internationalization efforts. These keys include: 1) Changing the university mission statement to include internationalization; 2) gaining support for internationalization from university leaders; 3) using experiences of international students and professors as well as Americans who have studied, worked, or lived abroad; 4) supporting faculty involvement in international activities; and 5) supporting student involvement in international activities.

**Changing the university mission statement to include internationalization** is an important first step in internationalizing an institution. This is necessary for several
reasons, the most important of which is that colleges and departments generally adopt mission statements that reflect the overall mission of the university. Another important reason is that a university without an international dimension in its educational mission is at a disadvantage in applying for funds for international activities because its requests "appear peripheral to its mission" and "are not competitive almost by definition" (Groennings, 1986, p. 9). A university truly dedicated to internationalizing the education of its students will be more successful in this task. Aigner, Nelson, and Stimpfl (1992) explained that adopting any internationalization plan is difficult due to the normal structure of the university, "which neither lends itself to sweeping reform nor centralized coordination" (p. 9). This situation emphasized the need for the inclusion of internationalization in the university mission statement. Iowa State University's mission statement (1989) contains the following sentence: "A common goal of undergraduate education is to assure that all students, regardless of disciplinary major, acquire literacy in science and technology, an understanding of humane and ethical values, an awareness of the intellectual, historical, and artistic foundations of our culture, and a sensitivity to other cultures and to international concerns" [italics added]. The mission statement of the College of Agriculture (1990) also contains a reference to internationalization: "The College believes students should learn to make informed decisions, to pursue new knowledge, and to become engaged in activities that strengthen their ability to participate in an increasingly global society" [italics added].

Gaining support from university leaders is crucial to internationalization efforts. These leaders may be administrators, department heads, faculty, offices of international
programs, or student leaders. Administrators can provide leadership through the signals they send regarding priorities. Their involvement can range from presence at international education events to the allocation of resources in support of internationalizing the university, especially in support of faculty development (Harari, 1992). Department heads must encourage their faculty to take on international teaching, research, and consultancy projects. Faculty must encourage their students to get involved in international activities by stressing the value of study abroad and integrating international concepts into the classes they teach. Student leaders can serve as examples by getting involved in the internationalization effort, through participation in everything from on-campus activities involving international students to international educational exchange programs. If institutions are going to be successful in internationalizing the undergraduate curriculum, it will take leadership from every level.

Using the experiences of international students and professors, as well as American students and professors who have been abroad, has the potential to greatly enrich the curriculum of undergraduate programs. Open Doors 1991-1992 (Zikopoulos, 1992) reported that enrollment of international students on our campuses reached a new high of 438,618 during that academic year. The popularity of study in U.S. institutions is reflected in the fact that one-third of all students enrolled outside of their home country enroll in programs in the U.S. (Stevenson, 1994). Tonkin and Edwards (1981) explained,

The United States is the world's greatest supplier of education as a commodity. It plays host to an enormous number of education-related
visitors from every corner of the world. But despite their numbers, foreign students have relatively little effect on the institutions at which they study. They come essentially as clients on our terms. (p. 28)

Thus many of our international students report that they have never been invited to an American home or to speak to a class (Jarchow, 1993). How much more enriched would courses be if professors would only turn to these students to give examples from their home countries or to describe their economies or agricultural products? Hammig and Rosson (1989) agreed that "we can all improve our understanding of world agriculture and the institutional forces that shape it through classroom discussion focusing on specific issues, where the foreign student leads the discussion from the perspective of his home environment" (p. 39).

Faculty are an important key to internationalizing the curriculum. (American Association of State Colleges and Universities, 1985; Hammig and Rosson, 1989; Henson and Noel, 1989; Reisch, 1989; Schram, 1992). According to Harari (1992), successful faculty can become ideal "change agents" by sharing their experiences in internationalizing their discipline with other faculty members. In order to share their experiences, faculty must first become involved in international activities. International activities in which faculty may become involved include teaching, research, and long-term consulting. Many faculty already have considerable international experience, however it does not always "rub off" on the curriculum (Tonkin, 1988). Faculty members with international experience can often be grouped into the following categories:
1. The missionary. This type takes frequent trips abroad, flying here and there to consult, to talk with government officials, and to give lectures. Probably has no knowledge of foreign languages.

2. The converted. The foreign-born faculty member who has become Americanized and pays little or no attention to new developments abroad, and makes no use in the classroom of earlier foreign experience.

3. The plunderer. This type spends weeks or months holed up in foreign libraries doing research, then returns to the U.S. to publish studies in English for American scholars to read and to give papers at U.S. conferences.

4. The bon-vivant. He or she takes frequent vacations abroad and knows the best restaurants in every foreign city. (Adapted from Tonkin, 1988)

U.S. colleges and universities need these various types of faculty members to bring their international experiences into the classroom and share them with students. Lambert (1980) explained,

The problem is how to harness the international traveling of cosmopolitan faculty to the educational process. Somehow faculty travel abroad has become part of professional and research activities, yet has little to do with their teaching. To increase and harness this overseas experience to the educational process calls for a considerable effort. (p. 15)
As suggested by Dorner (1989), most students will learn about and develop interests in global issues in campus classrooms, taught by professors who themselves have worked abroad. However, the majority of faculty members will not become committed to internationalizing the curriculum until it becomes an important part of the university promotion and tenure system (Aigner et al., 1992; American Association of State Colleges and Universities, 1985; Dorner, 1989; Harari, 1992; Hertford and Hartley, 1987; Schram, 1992; Smuckler and Sommers, 1988).

Students should be encouraged to participate in international activities. As described previously, it has been well documented that American students are sadly lacking in their knowledge of the world around them. The United States is one of the only nations in the world where a student can graduate from college without ever having studied a foreign language (Harari, 1992). It appears that in general, only students with international career objectives take courses dealing with international topics or foreign languages (Lambert, 1980). Even fewer students participate in international educational exchange programs. Open Doors 1991-1992 (Zikopoulos, 1992) reported that a record number of 71,154 U.S. students participated in academic programs outside of the United States during 1991-92. However, this accounts for only about one-half of one percent of U.S. students in higher education (Harari, 1992). Open Doors also reported that of the U.S. students studying abroad in 1991-92, the largest proportion came from the humanities and liberal arts (21.1%). The next largest group was from the social sciences (17.3%). Less than one percent were in the field of agriculture, making it the least represented field in study abroad programs by U.S. students.
A 1990 report of the National Task Force on Undergraduate Education Abroad called for raising the number of American students studying abroad to ten percent, or 1,250,000 students by the year 2000 (Harari, 1992). This effort would make U.S. study abroad more comparable to that of the European Economic Community, which sends at least ten percent of the students in each member country to study in another country each year (Jarchow, 1993). This same goal was set for Iowa State University by the Ad Hoc Committee on the Internationalization of Iowa State University (Whiteford, 1990). As Richard Lambert (1989) stated, "It is time that American study-abroad programs...move beyond the training-wheels stage." Two critical factors to increasing the number of students studying abroad are the integration of study abroad into existing curricula and requirements and its advocacy by faculty advisors (Aigner et al., 1992). If students see study abroad as something extra that does not fit into the requirements of their degree program and that will most likely delay their graduation, they will not be motivated to get involved. Another issue that plays a big part in students' decisions to study abroad is funding. The cost of many study abroad programs is such that it excludes all but students from higher income families. Ways must be found to broaden this base of student participation (Aitches and Hoemeke, 1992). The University of Texas at Austin discovered a creative way to help with the funding of international educational exchange programs. In 1987, students voted in a campus-wide referendum to raise their semester fees by $1 to create a financial aid fund for international education programs (Aitches and Hoemeke, 1992).
In many cases, however, funding is not readily available for study abroad programs. Universities need to develop other methods of integrating international concepts into undergraduate students' educational experiences. Atwell (1990) suggested that "providing more incentives and rewards for students who study abroad, especially those who go to non-Western nations" as well as "making study abroad more accessible, with financial aid or special discounts, to minorities and other traditionally under-represented student populations" are steps to help improve international education on campus (p. 6). It is apparent from the literature that undergraduate students need to be exposed to international ideas, topics, and activities as a part of their education.

Internationalizing the Curriculum of Undergraduates in Agriculture: Who

Lambert (1989) wrote, "We need to introduce an international dimension into the education of students while they are still in school and college so that they will be able to perceive and put into context events that take place abroad or across our internal cultural divisions" (p. 2). Groennings (1990) explained that "for today's undergraduates, who will be in their early thirties as we enter the next century, little seems more certain than the quickening impact on their lives of the rest of the world" (p. 13). Harari (1992) stressed that "the basic challenge to the internationalization of the curriculum in our colleges and universities ought to be tackled at the undergraduate level, when the students need to acquire a sophisticated degree of global awareness" (p. 52). This challenge is especially pertinent at the undergraduate level in colleges of agriculture.
In 1992, 24.6% of imports for consumption and 42.9% of exports of domestic products were agricultural products (Statistical Abstract of the United States, 1994). The output of one out of every three acres of U.S. land is exported, and exports account for as much as 40 percent of the output of American farms and ranches (Schuh, 1989). By 2001, the value of U.S. agricultural exports is predicted to exceed 52 billion dollars (Food and Agricultural Policy Research Institute, 1994). Yet many students of agriculture may wonder why they need an internationalized curriculum. As Hammig and Rosson (1989) explained, colleges of agriculture continue to do an excellent job of training in the technical fields. "Clearly, the Land Grant system has had a significant role in advancing production efficiency worldwide" (p. 36). However, they also pointed out, "It is important that we realize that the United States is not the only nation working on these new techniques. If we do not work more closely with our foreign counterparts, we may fall behind even in this area" (p. 36). Even students who have no intentions of ever being involved in international agriculture have a need for an internationalized education. Hammig and Rosson (1989) explained,

Farm management concentrations may not seem to have much need for international content; but as the competition from foreign farmers grows in importance, the need for domestic farm managers to understand foreign markets also grows. Market risks that farmers face will increasingly be affected by foreign producers and consumers....Farm managers therefore
should be trained to be sensitive to what goes on beyond national borders.

(p. 38)

Schuh (1989) emphasized this point: "U.S. farmers no longer compete with the farmers down the road or the farmers in other states. They now compete with farmers in Argentina, Brazil and other potentially important countries. Moreover, their markets also are in other countries" (p. 8). To help provide a rationale for internationalizing undergraduate education in agriculture, Schuh (1989) explained the significance of the recent shifts in comparative advantage that have been occurring around the world. There is a growing capacity for agricultural research in other parts of the world to produce the agricultural technologies previously exported from the United States. A major part of this capacity is in developing countries, producing for the first time in history new production technology for the food crops in the tropical regions of the world. While Schuh admitted that the full impact of these shifts in comparative advantage is not yet clear, what is clear is that these shifts will have significant impact on the direction and size of international trade flows. For example, "U.S. agriculture has seen Brazil take over approximately half of the international soybean market and literally dominate the international market in frozen orange juice" (Schuh, 1989, p. 6).

While a case has been made for internationalizing undergraduate curricula in agriculture, the progress of this internationalization effort is not yet certain. McBreen (1992) wrote,
There appears to be no lack of understanding of the international trade impact on agriculture, there is considerable recognition of global environmental impacts, and there is a growing awareness of the value for U.S. agriculture of the international agricultural research community's work. Yet, almost no real progress has been made to ensure that graduates of our colleges of agriculture are internationally literate. (p. 253)

This lack of progress in the internationalization effort is discouraging, given the importance of international events to U.S. agriculture. Henson and Noel (1988) further explained the need to internationalize colleges of agriculture:

In order to address the potential markets and to be competitive, not only within the U.S. but globally, it is necessary that we in the colleges of agriculture be able to identify needs and opportunities around the world and to develop our individual and collective comparative advantages to meet these needs and opportunities. In order to do so, U.S. universities and colleges of agriculture must internationalize teaching, research, extension, and public service functions. (p. 16)

Schuh (1989) described four implications for education in agriculture of the new international economy: 1) "Our students must understand the international system of which they will be an integral part;" 2) "our students need a greater understanding of the
cultures of other countries;" 3) "our students need to understand the agriculture of other countries;" and 4) "U.S. students need to understand how economic policies differ in other countries and what those differences mean for our ability to be competitive" (pp. 8-9).

Several studies have been conducted to determine how faculty and administrators feel about internationalizing agricultural curricula. In a 1990 study, upper administrators in 183 universities rated the priorities for international activities, the top four of which impacted on the undergraduate curriculum (Henson, Noel, Gillard-Byers, and Ingle). The priorities were: 1) encouraging foreign language study; 2) including international content and materials in the curriculum; 3) establishing or implementing area studies programs; and 4) offering study or internship abroad opportunities for U.S. students. King's (1991) study at Iowa State University found agricultural faculty felt that internationalization of the curriculum was important and that the agricultural curriculum should provide students with an international agriculture knowledge base. Both King (1991) and Akpan (1994) recommended that a study be conducted to determine student perceptions regarding the internationalization of the agricultural curriculum. Even earlier, in 1984, Kellogg recommended that a study be completed on the needs of agricultural students for an international dimension to educational programs. However, no such studies were found in this review of the literature.

**Summary**

A review of the literature provides a strong rationale for internationalizing the curriculum of colleges and universities. However, students are not yet gaining the global
understanding that will be necessary for them to function in our interconnected society.

Several keys work together to internationalize the curriculum, including: 1) Changing the university mission statement to include internationalization; 2) gaining support for internationalization from university leaders; 3) using experiences of international students and professors as well as Americans who have studied, worked, or lived abroad; 4) supporting faculty involvement in international activities; and 5) supporting student involvement in international activities.

The theoretical base for this study is found in the literature relating to curriculum and curricular change. A common thread among this literature was the premise that the curriculum should respond to changes in society in order to better prepare students for the future. The future is global, and this is especially true in the field of agriculture. The curriculum in agriculture needs to become more international so that the students of agriculture will gain the global understanding necessary to function effectively in society.
CHAPTER III. METHODS AND PROCEDURES

At the time of this study, internationalization of the curriculum was an important issue facing institutions of higher education across the country. The study focused on this issue from the point of view of undergraduate students in the College of Agriculture at Iowa State University.

The overall purpose of this study was to assess the perceptions of undergraduate students regarding the internationalization of the curriculum in the College of Agriculture at Iowa State University. The specific objectives of the study were to: 1) identify undergraduate students' perceptions regarding the internationalization of the College of Agriculture curriculum; 2) assess student involvement in international activities; 3) identify possible barriers to student participation in international activities; and 4) identify demographic characteristics of participants in the study.

Design

The research design used in this study was descriptive. Ary, Jacobs, and Razavieh (1990) explained that "descriptive research studies are designed to obtain information concerning the current status of phenomena. They are directed toward determining the nature of a situation as it exists at the time of the study" (p. 381). The information gathered from this descriptive research study may assist the College of Agriculture in making better decisions about internationalizing its curricula.
Population and Sample

The population for this study consisted of undergraduate students in the College of Agriculture at Iowa State University during the 1994 fall semester. According to the records of the College of Agriculture Student Services Office, there were 2587 undergraduate students enrolled in the College of Agriculture in the fall of 1994. Enrollment lists were obtained from the Agriculture Student Services Office, and a random sample of 1000 sophomores, juniors, and seniors was selected from these lists for participation in the study (293 sophomores, 325 juniors, 382 seniors).

Instrumentation

Data for this study were collected through the use of a mailed questionnaire. The development of the researcher-written instrument was based on a review of the literature, experiences of the researcher and her major professor, and suggestions from faculty and administrators in the College of Agriculture. The researcher's program of study committee, along with faculty and graduate students in the Department of Agricultural Education and Studies served as a panel of experts, to help establish face and content validity of the instrument. The researcher drew upon the international experience and the curriculum development knowledge of these individuals to improve the survey instrument.

The instrument was designed to measure student perceptions regarding the internationalization of the curriculum in the College of Agriculture at Iowa State University. The instrument also contained questions aimed at assessing student
involvement in international activities as well as identifying possible barriers to student participation in international activities.

The survey instrument consisted of 38 items arranged in four sections. The first section measured student perceptions regarding the internationalization of the curriculum in the College of Agriculture. Perceptions were measured through the use of a five-point, Likert-type scale, with descriptors as follows: strongly disagree, disagree, neutral, agree, and strongly agree. The second part of the questionnaire was designed to assess student involvement in international activities. This section contained questions regarding the students' experiences in other countries, their study of foreign languages, the internationalization of their courses, and their involvement in local activities of an international nature. The third part of the instrument contained questions designed to identify possible barriers to student participation in international activities. Students indicated items that prevented them from participating in study abroad programs, travel courses, on-campus international activities, and international internship programs. Part four of the survey instrument was designed to collect data about selected demographic characteristics of the participants.

Preliminary copies of the instrument were distributed to graduate and undergraduate students who were not included in the study sample. Changes were made to the instrument according to their suggestions in an attempt to assure face and content validity. The Committee on the Use of Human Subjects in Research at Iowa State University reviewed and approved the data collection instrument.
Data Collection

The instrument was mailed to 1000 College of Agriculture undergraduates on November 28, 1994. A cover letter explaining the nature of the study was enclosed with each questionnaire. This letter also assured anonymity of responses. A piece of chewing gum was included with each questionnaire as an incentive for students to complete the instrument. Participants were asked to complete the questionnaire and return it within five days. Those not wishing to participate in the study were asked to return the blank questionnaire. A code number was stamped on the front cover of each questionnaire for the purposes of identification and follow-up.

The follow-up procedure consisted of a reminder postcard which was mailed on December 8, 1994, to all participants who had not yet returned the questionnaire. As of December 10, 1994, 431 (43.1%) questionnaires had been returned. Following the reminder postcard, another 109 (10.9%) questionnaires were returned.

Data collection was completed by January 25, 1995, with 540 (54%) questionnaires returned. Fourteen blank questionnaires were returned, and two questionnaires were unusable because the students were not in the College of Agriculture. Therefore, the usable response rate was 524 questionnaires, or 52.4%. Given the nature of undergraduate students, the researcher accepted this response rate as credible.

Participants who responded after receiving the reminder postcard were considered to be late respondents. Early and late respondents were compared to determine if any differences between the groups existed. At the .05 level, no significant differences were
found between early and late respondents. Therefore, the findings of the study may be
generalized to the whole population of undergraduates in the College of Agriculture.

Data Analysis

Data were coded and entered into a computer as the questionnaires were received. The coded data were then analyzed using the Statistical Package for the Social Sciences for the personal computer (SPSSx-PC). The alpha level was set *a priori* at .05 for all tests.

Assumptions of the Study

The following basic assumptions were made for the purpose of this study:

1. Student responses were honest and accurate on each of the items in the questionnaire.
2. The most appropriate questions were asked about student perceptions regarding the internationalization of the curriculum.
3. Student responses to this questionnaire will be useful to the College of Agriculture.

Limitations of the Study

The findings of this study may not be a reflection of other students in other colleges and universities. The results can be generalized only to undergraduate students in the College of Agriculture at Iowa State University. However, there may be implications of this study that could be helpful to other colleges and institutions.
The researcher expected a low response rate as a percentage of the whole due to the nature of undergraduate students. There may be some limitations to a low response rate; however, the researcher accepted the response rate of 52.4% as credible. The 524 usable questionnaires that were received represented 20 percent of the student population in the college. Therefore, it appears logical that the findings were representative of student views.
CHAPTER IV. FINDINGS

The overall purpose of this study was to assess the perceptions of undergraduate students regarding the internationalization of the curriculum in the College of Agriculture at Iowa State University.

This chapter presents the results obtained from the statistical analysis of the data. The findings in this chapter were based on data obtained from the 524 usable questionnaires that were returned. The number of respondents and the percentages reported in the tables may not always add up to 524, or 100 percent, respectively, either because of missing responses or because in certain questions more than one response could be selected. The data will be presented and discussed in four general areas based on the objectives of the study. These areas are: 1) demographic characteristics of the respondents; 2) student involvement in international activities; 3) barriers to participation in international activities; and 4) perceptions regarding the internationalization of the curriculum in the College of Agriculture.

To examine the reliability of the grouped items in the instrument, Cronbach's alpha was used to analyze the 12 items in the scale "Perceptions regarding internationalization of the curriculum in agriculture." Cronbach's alpha coefficient for this scale was found to be .90. Usually, reliability coefficients greater than .80 are regarded as high, especially for behavioral measures (Ary, Jacobs, and Razavieh, 1990).
Demographic Characteristics

As previously reported, 524 respondents provided usable data for this study. This section provides a description of these respondents in terms of gender, age, classification, majors and minors, place raised, and citizenship.

Almost 60 percent (n=314) of the respondents were male, and 39 percent (n=204) were female. Six respondents (1.1%) did not report their gender.

The data in Table 1 present the distribution of respondents by age. A majority (78.1%) of the respondents were between the ages of 18 and 22. Less than 7 percent of the respondents were age 26 and older. Ten respondents (1.9%) did not indicate their age.

Table 1

Distribution of respondents by age (N=524)

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 20</td>
<td>203</td>
<td>38.7</td>
</tr>
<tr>
<td>21 - 22</td>
<td>207</td>
<td>39.5</td>
</tr>
<tr>
<td>23 - 25</td>
<td>69</td>
<td>13.2</td>
</tr>
<tr>
<td>26 and older</td>
<td>35</td>
<td>6.7</td>
</tr>
<tr>
<td>Missing</td>
<td>10</td>
<td>1.9</td>
</tr>
<tr>
<td>Total</td>
<td>524</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Classification of respondents is reported in Table 2. The questionnaire was sent to students classified by the College of Agriculture as sophomores, juniors, and seniors. However, two respondents reported their classification as freshmen. Six respondents did not report their classification. The largest group of respondents was seniors with 195 (37.2%), followed closely by juniors with 193 (36.8%). Sophomore respondents numbered 128 (24.4%). The questionnaire initially was mailed to 293 sophomores, 325 juniors, and 382 seniors. Thus, 43.7 percent of the sophomores, 59.4 percent of the juniors, and 51.0 percent of the seniors who received the questionnaire responded, for an overall response rate of 52.4 percent.

Table 2

<table>
<thead>
<tr>
<th>Classification</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Sophomore</td>
<td>128</td>
<td>24.4</td>
</tr>
<tr>
<td>Junior</td>
<td>193</td>
<td>36.8</td>
</tr>
<tr>
<td>Senior</td>
<td>195</td>
<td>37.2</td>
</tr>
<tr>
<td>Missing</td>
<td>6</td>
<td>1.1</td>
</tr>
<tr>
<td>Total</td>
<td>524</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Full-time status was declared by 95.8 percent (n=502) of the respondents, while four percent (n=21) of the respondents declared part-time status. A student taking less than twelve credits during the spring or fall semester is considered a part-time student. One respondent did not indicate his or her status.

Students were asked to indicate their primary and secondary majors, as well as any minors. The data in Table 3 present the distribution of respondents by primary major, secondary major, and minor.

Table 3

Distribution of respondents by primary major, secondary major, and minor (N=524)

<table>
<thead>
<tr>
<th>Total College Undergraduates</th>
<th>Primary Major</th>
<th>Secondary Major</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>n percent</td>
<td>n percent</td>
<td>n percent</td>
<td>n percent</td>
</tr>
<tr>
<td>Agricultural Biochemistry</td>
<td>23 0.9</td>
<td>2 0.4</td>
<td>1 0.2</td>
</tr>
<tr>
<td>Agricultural Business</td>
<td>391 15.1</td>
<td>73 13.9</td>
<td>8 1.5</td>
</tr>
<tr>
<td>Agricultural Education</td>
<td>61 2.4</td>
<td>16 3.1</td>
<td>6 1.1</td>
</tr>
<tr>
<td>Agricultural Studies</td>
<td>219 8.4</td>
<td>57 10.9</td>
<td>3 0.6</td>
</tr>
<tr>
<td>Agricultural Engineering*</td>
<td>2 0.4</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>Agronomy</td>
<td>132 5.1</td>
<td>45 8.6</td>
<td>6 1.1</td>
</tr>
<tr>
<td>Agricultural Systems Technology</td>
<td>77 3.0</td>
<td>18 3.4</td>
<td>1 0.2</td>
</tr>
<tr>
<td>Animal Science</td>
<td>413 15.9</td>
<td>111 21.2</td>
<td>9 1.7</td>
</tr>
<tr>
<td>Animal Ecology</td>
<td>120 4.6</td>
<td>26 5.0</td>
<td>0 0</td>
</tr>
<tr>
<td>Dairy Science</td>
<td>68 2.6</td>
<td>15 2.9</td>
<td>1 0.2</td>
</tr>
</tbody>
</table>
Table 3 (Continued)

<table>
<thead>
<tr>
<th>Major</th>
<th>Count</th>
<th>%</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entomology</td>
<td>10</td>
<td>0.4</td>
<td>3</td>
<td>0.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fisheries &amp; Wildlife Biology</td>
<td>270</td>
<td>10.4</td>
<td>48</td>
<td>9.2</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Science &amp; Human Nutrition</td>
<td>48</td>
<td>1.9</td>
<td>9</td>
<td>1.7</td>
<td>2</td>
<td>0.4</td>
<td>1</td>
<td>0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forestry</td>
<td>107</td>
<td>4.1</td>
<td>18</td>
<td>3.4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Genetics</td>
<td>43</td>
<td>1.7</td>
<td>11</td>
<td>2.1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horticulture</td>
<td>183</td>
<td>7.1</td>
<td>29</td>
<td>5.5</td>
<td>3</td>
<td>0.6</td>
<td>2</td>
<td>0.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microbiology</td>
<td>65</td>
<td>2.5</td>
<td>13</td>
<td>2.5</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant Health &amp; Protection</td>
<td>2</td>
<td>0.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Veterinary Medicine</td>
<td>67</td>
<td>2.6</td>
<td>5</td>
<td>1.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Service &amp; Administration</td>
<td>29</td>
<td>1.1</td>
<td>8</td>
<td>1.5</td>
<td>1</td>
<td>0.2</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
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<tr>
<td>Zoology</td>
<td>33</td>
<td>1.3</td>
<td>10</td>
<td>1.9</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pest Management</td>
<td>1</td>
<td>0.2</td>
<td>6</td>
<td>1.1</td>
<td>8</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International Agriculture</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0.8</td>
<td>0</td>
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<td></td>
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</tr>
<tr>
<td>Seed Science</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0.8</td>
<td>0</td>
<td>0</td>
<td></td>
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<tr>
<td>Environmental Studies</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0.4</td>
<td>11</td>
<td>2.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.4</td>
<td>11</td>
<td>2.1</td>
<td>21</td>
<td>4.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a* Major not administered by the College of Agriculture.

*b* Available as a secondary major only.
Respondents were asked to classify the place where they were raised as a farm, rural (not farm), or town or city. A majority of the students (55.3%) indicated that they had been raised on a farm. About 17 percent of the respondents grew up in a rural, non-farm area, while about 28 percent lived in towns or cities.

In addition, students were asked to indicate the population of the place they considered to be their hometown. Responses were spread across the six population categories. The data in Table 4 indicate the distribution of responses by size of hometown.

Table 4

Distribution of responses by size of hometown (N=524)

<table>
<thead>
<tr>
<th>Population</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 500</td>
<td>73</td>
<td>13.9</td>
</tr>
<tr>
<td>500 - 999</td>
<td>64</td>
<td>12.2</td>
</tr>
<tr>
<td>1000 - 2499</td>
<td>115</td>
<td>21.9</td>
</tr>
<tr>
<td>2500 - 9999</td>
<td>122</td>
<td>23.3</td>
</tr>
<tr>
<td>10,000 - 49,999</td>
<td>57</td>
<td>10.9</td>
</tr>
<tr>
<td>50,000 and over</td>
<td>89</td>
<td>17.0</td>
</tr>
<tr>
<td>Missing</td>
<td>4</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>524</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
Respondents were asked to indicate the state or country in which their hometown was located. A majority (82.6%) of the students reported that they were from Iowa. Almost 9 percent of the students were from another Midwestern state. Approximately 3 percent of the respondents were students from countries other than the United States. The data in Table 5 provide more information concerning the distribution of respondents by home state or country.

Table 5

Distribution of respondents by home state/country (N=524)

<table>
<thead>
<tr>
<th>State/country</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iowa</td>
<td>433</td>
<td>82.6</td>
</tr>
<tr>
<td>Illinois</td>
<td>25</td>
<td>4.8</td>
</tr>
<tr>
<td>Minnesota</td>
<td>9</td>
<td>1.7</td>
</tr>
<tr>
<td>Nebraska</td>
<td>7</td>
<td>1.3</td>
</tr>
<tr>
<td>Missouri</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>Michigan</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>7</td>
<td>1.3</td>
</tr>
<tr>
<td>Other State</td>
<td>18</td>
<td>3.4</td>
</tr>
<tr>
<td>Other Country</td>
<td>16</td>
<td>3.1</td>
</tr>
<tr>
<td>Missing</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>Total</td>
<td>524</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Ninety-six percent (n=503) of the respondents were U.S. citizens, while less than one percent were U.S. permanent residents. Approximately three percent (n=16) of the respondents were international students.

**Student Involvement in International Activities**

In another part of the questionnaire, students were asked about their involvement in international activities including experiences abroad, foreign language study, local international activities, and exposure to international content in courses.

Forty percent of the respondents had spent time in a country other than the United States or their home country. Thus 60 percent of the students in this study had never been abroad. Figure 1 indicates the countries or regions visited by respondents. Western Europe was visited by 19.8 percent of the respondents, while 15.6 percent had been to Canada and 12.4 percent to Mexico. Regions least visited by respondents were Africa and the Middle East.

Respondents were asked to indicate the length of time they had spent in each country or region. Approximately 33 percent of the respondents spent between one week and one month in the country or region they visited. Almost 16 percent of the respondents spent less than one week. Less than four percent of the respondents had spent more than six months in another country or region. The data in Table 6 provide a more detailed look at the amount of time spent abroad by respondents.
When asked how their time abroad was spent, 45 percent of the students responded that they had been vacationing. Approximately nine percent had been part of an organized exchange or tour group. About four percent of the respondents had worked abroad, and approximately three percent had studied abroad. The data in Table 7 give the distribution of respondents by their activities abroad.
Table 6

**Distribution of respondents by time spent abroad (N=524)**

<table>
<thead>
<tr>
<th>Time spent in country/region</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 week</td>
<td>83</td>
<td>15.8</td>
</tr>
<tr>
<td>1 week to less than 1 month</td>
<td>174</td>
<td>33.2</td>
</tr>
<tr>
<td>1 to 3 months</td>
<td>51</td>
<td>9.7</td>
</tr>
<tr>
<td>3 to 6 months</td>
<td>11</td>
<td>2.1</td>
</tr>
<tr>
<td>6 to 9 months</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>9 to 12 months</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>More than 1 year</td>
<td>14</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Table 7

**Distribution of respondents by activity abroad (N=524)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacation</td>
<td>236</td>
<td>45.0</td>
</tr>
<tr>
<td>Work</td>
<td>21</td>
<td>4.0</td>
</tr>
<tr>
<td>Study</td>
<td>15</td>
<td>2.9</td>
</tr>
<tr>
<td>Exchange/tour group</td>
<td>48</td>
<td>9.2</td>
</tr>
<tr>
<td>Lived there</td>
<td>14</td>
<td>2.7</td>
</tr>
<tr>
<td>Mission work</td>
<td>8</td>
<td>1.5</td>
</tr>
</tbody>
</table>
A majority of the respondents (95.2%) reported English as their native language. Spanish was the native language of 1.9 percent of the respondents and Chinese was the native language of 1.1 percent. Other native languages were spoken by 1.7 percent of the respondents.

Respondents were asked which, if any, languages they had studied, other than English or their native language. They were also asked to indicate the length of time they had studied each language as well as their fluency in the language. Figure 2 shows the percentages of respondents who studied various foreign languages. Spanish had been studied by 298 respondents (56.9%), while 115 respondents (21.9%) reported having studied French. German had been studied by 72 respondents (13.7%). Very few students had studied Russian (1.3%), Latin (1.1%), Japanese (1.0%), Chinese (0.8%), and other languages (2.1%).

A majority of the students had studied foreign languages for two years or less, except students of German, who studied the language longer than two years. Only 12.8 percent of the respondents reported that they had never studied a foreign language. A majority of the students (67%) reported their level of fluency as limited, while 17.4 percent reported moderate fluency in the language studied. Only four respondents (0.8%) indicated that they were fluent in the language studied. Figure 3 describes the foreign language fluency as reported by respondents.
Figure 2. Foreign languages studied by students in the College of Agriculture at Iowa State University (N=524).
Figure 3. Foreign language fluency* of students in the College of Agriculture at Iowa State University (N=524).

* Foreign language fluency was defined as:

1. Limited - able to get around while traveling, using a dictionary; can recite dates, colors, days of the week, etc.
2. Moderate - able to conduct normal conversations, read simple articles.
3. Fluent - able to understand natives speaking quickly and speak with no distinguishable accent.
Since it is possible to participate in an international activity without traveling abroad, students were asked about their involvement in local international activities. Approximately 35 percent of the respondents indicated that they had participated in such an activity. These activities ranged from hometown cultural celebrations to international food festivals at the university. Several students credited high school foreign language clubs (Spanish club, German club, etc.) with exposing them to another culture. When asked to indicate where the event took place, a majority of the respondents (59.8%) chose university campus, while 21.2 percent selected church (Figure 4).

Figure 4. Location of local international activities as reported by students in the College of Agriculture at Iowa State University (N=524).
Students were asked how instructors in the College of Agriculture were infusing a global perspective into the curriculum. Figure 5 shows student responses to this question. A majority of the respondents (73.1%) indicated that instructors infused a global perspective through discussion of their own experiences. Over fifty percent of the respondents said films, slides, and videos were used to infuse a global perspective, while almost fifty percent said instructors compared and contrasted agricultural systems.

Figure 5. Methods used by instructors in the College of Agriculture to infuse a global perspective into the curriculum as reported by students in the college (N=524).
Students were asked to rate the amount of international content in all of the courses they had taken in each department in the College of Agriculture. The following scale was used: "low" = almost no international content, "medium" = some international content, and "high" = a great deal of international content. If students had not taken a course in the department, they were asked to circle "NA", or not applicable. Only one department, Sociology, received a substantial number of "high" ratings (30.1%) among respondents having taken classes in that department. Departments receiving the most "medium" ratings from former students included Agricultural Economics (50.8%), Forestry (48.1%), Animal Science (47.7%), Agronomy (46.7%), and Sociology (46.1%). All other departments received a majority of "low" ratings from the respondents (Table 8).

Table 8

Ratings on the amount of international content in courses in the College of Agriculture by department as perceived by students in the college (N=524)

<table>
<thead>
<tr>
<th>Department</th>
<th>n</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry and Biophysics</td>
<td>185</td>
<td>90.3</td>
<td>9.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Economics (Agricultural)</td>
<td>291</td>
<td>39.2</td>
<td>50.8</td>
<td>10.0</td>
</tr>
<tr>
<td>Agricultural Education and Studies</td>
<td>175</td>
<td>52.0</td>
<td>42.3</td>
<td>5.7</td>
</tr>
<tr>
<td>Agricultural Systems Technology</td>
<td>203</td>
<td>74.9</td>
<td>23.2</td>
<td>2.0</td>
</tr>
<tr>
<td>Agronomy</td>
<td>364</td>
<td>45.3</td>
<td>46.7</td>
<td>8.0</td>
</tr>
<tr>
<td>Animal Ecology</td>
<td>164</td>
<td>56.1</td>
<td>37.8</td>
<td>6.1</td>
</tr>
</tbody>
</table>
Table 8 (Continued)

<table>
<thead>
<tr>
<th>Department</th>
<th>N</th>
<th>Low (%)</th>
<th>Medium (%)</th>
<th>High (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Engineering</td>
<td>49</td>
<td>71.4</td>
<td>20.4</td>
<td>8.2</td>
</tr>
<tr>
<td>Animal Science</td>
<td>331</td>
<td>44.7</td>
<td>47.7</td>
<td>7.6</td>
</tr>
<tr>
<td>Entomology</td>
<td>62</td>
<td>56.5</td>
<td>32.2</td>
<td>11.3</td>
</tr>
<tr>
<td>Food Science and Human Nutrition</td>
<td>96</td>
<td>63.5</td>
<td>28.1</td>
<td>8.3</td>
</tr>
<tr>
<td>Forestry</td>
<td>52</td>
<td>44.2</td>
<td>48.1</td>
<td>7.7</td>
</tr>
<tr>
<td>Genetics</td>
<td>160</td>
<td>83.8</td>
<td>13.1</td>
<td>3.1</td>
</tr>
<tr>
<td>Horticulture</td>
<td>101</td>
<td>55.4</td>
<td>40.6</td>
<td>4.0</td>
</tr>
<tr>
<td>MIPM</td>
<td>98</td>
<td>77.6</td>
<td>19.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Plant Health and Protection</td>
<td>62</td>
<td>66.1</td>
<td>25.8</td>
<td>8.1</td>
</tr>
<tr>
<td>Sociology</td>
<td>276</td>
<td>23.9</td>
<td>46.1</td>
<td>30.1</td>
</tr>
<tr>
<td>Zoology</td>
<td>194</td>
<td>79.4</td>
<td>17.5</td>
<td>3.1</td>
</tr>
</tbody>
</table>

a As rated by respondents having taken one or more courses in that department according to the following scale: "low" = almost no international content, "medium" = some international content, and "high" = a great deal of international content.
b Major administered through the Department of Agricultural and Biosystems Engineering.
c Major administered through the Department of Zoology and Genetics.
d Microbiology, Immunology, and Preventative Medicine.

t Barriers to Student Involvement in International Activities

The third part of the survey instrument sought to identify possible barriers to student participation in international activities. Students were asked to indicate what prevented them from participating in activities such as study abroad, travel courses, on-campus international activities, and work abroad.
Approximately two percent of the respondents indicated that they had participated in a study abroad program. Major barriers to study abroad indicated by the respondents were financial resources (73.5%), interruption in academic program (56.9%), and lack of language skills (44.1%). In addition, almost 32 percent of the respondents indicated that they were not aware of the opportunities for study abroad (Figure 6).

Figure 6. Barriers to study abroad as indicated by students in the College of Agriculture at Iowa State University (N=524).
When asked about participation in travel courses, 4.5 percent of the respondents indicated that they had been involved in a travel course. Travel courses include short-term trips organized by the College of Agriculture which usually take place during the semester or summer break. Students receive academic credit for their participation in the Agriculture Travel Course. Major barriers to participation in travel courses indicated by respondents were financial resources (64.3%) and lack of awareness of opportunities (41.9%) (Figure 7).

![Legend](image)

Figure 7. Barriers to participation in travel courses as indicated by students in the College of Agriculture at Iowa State University (N=524).
Less than 12 percent of the respondents indicated that they had participated in on-campus international activities. A majority of the respondents (51.2%) said they did not participate in such activities due to a lack of interest. In addition, 43.4 percent of the respondents indicated they were not aware of these activities.

Students were also asked about barriers to participation in work abroad, or international internship programs. Only 1.6 percent of the respondents indicated that they had participated in an international internship program. A majority of the respondents (51.4%) said that they did not work abroad because it would cause an interruption in their academic program. Many respondents (43.6%) claimed that they were not aware of opportunities to work abroad (Figure 8).

![Figure 8. Barriers to participation in international internship programs as indicated by students in the College of Agriculture at Iowa State University (N=524).](image-url)
Student Perceptions Regarding the Internationalization of the Curriculum

A five-point, Likert-type scale was used to measure student perceptions regarding the internationalization of the curriculum in the College of Agriculture. Students were asked to respond to twelve questions dealing with the internationalization of the agricultural curriculum by circling letters on the scale. The scale descriptors were strongly disagree, disagree, neutral, agree, and strongly agree. Overall, the students held slightly favorable perceptions regarding the internationalization of the curriculum in agriculture. The overall mean rating for the perception scale was 3.51, just falling within the "agree" category (3.50 to 4.50). It was established a priori that a mean rating of 3.50 or higher indicated agreement while a rating below 2.50 indicated disagreement. The data in Table 9 provide information about student responses for individual items within the perception scale.

The perception statement with which the most respondents agreed or strongly agreed (79.4%) was "Today's college graduate in agriculture needs an understanding of agricultural systems around the world." Other statements with which a majority of the respondents agreed or strongly agreed were: "Professors should give examples from other countries' agricultural systems when teaching about U.S. systems" (76.5%), "ISU students should develop a greater awareness of international issues in agriculture" (73.2%), "The curriculum of the College of Agriculture should reflect a knowledge of the global community" (69.8%), "Professors in the College of Agriculture should infuse global awareness into the courses they teach" (62.4%), "The College of Agriculture should
Table 9

Means, modes, standard deviations, and percentages of perception statements regarding the internationalization of the curriculum in the College of Agriculture (COA) at Iowa State University (ISU) as reported by students in the college (N=524)

<table>
<thead>
<tr>
<th>Perception Statements</th>
<th>N</th>
<th>Mean</th>
<th>Mode</th>
<th>SD</th>
<th>Percentage of students agreeing b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today's college graduate in agriculture needs an understanding of agricultural systems around the world.</td>
<td>520</td>
<td>3.99</td>
<td>4.00</td>
<td>0.83</td>
<td>79.4%</td>
</tr>
<tr>
<td>ISU students should develop a greater awareness of international issues in agriculture.</td>
<td>520</td>
<td>3.85</td>
<td>4.00</td>
<td>0.83</td>
<td>73.2%</td>
</tr>
<tr>
<td>Professors should give examples from other countries' agricultural systems when teaching about U.S. systems.</td>
<td>524</td>
<td>3.84</td>
<td>4.00</td>
<td>0.87</td>
<td>76.5%</td>
</tr>
<tr>
<td>The curriculum of the COA should reflect a knowledge of the global community.</td>
<td>520</td>
<td>3.80</td>
<td>4.00</td>
<td>0.84</td>
<td>69.8%</td>
</tr>
<tr>
<td>Professors in the COA should infuse global awareness into the courses they teach.</td>
<td>519</td>
<td>3.66</td>
<td>4.00</td>
<td>0.95</td>
<td>62.4%</td>
</tr>
<tr>
<td>The COA should offer more international experiences for students.</td>
<td>523</td>
<td>3.60</td>
<td>3.00</td>
<td>0.87</td>
<td>51.9%</td>
</tr>
<tr>
<td>The COA should encourage students to participate in international internship programs.</td>
<td>524</td>
<td>3.53</td>
<td>4.00</td>
<td>0.91</td>
<td>52.4%</td>
</tr>
<tr>
<td>Understanding international issues helps a graduate of the COA get a job.</td>
<td>524</td>
<td>3.40</td>
<td>3.00</td>
<td>0.98</td>
<td>47.0%</td>
</tr>
<tr>
<td>The COA should encourage all students to participate in a study abroad program.</td>
<td>519</td>
<td>3.26</td>
<td>3.00</td>
<td>1.09</td>
<td>41.9%</td>
</tr>
<tr>
<td>The COA should have a global awareness course requirement.</td>
<td>523</td>
<td>3.07</td>
<td>4.00</td>
<td>1.15</td>
<td>42.6%</td>
</tr>
<tr>
<td>The COA should have a foreign language requirement.</td>
<td>520</td>
<td>2.42</td>
<td>2.00</td>
<td>1.23</td>
<td>19.6%</td>
</tr>
</tbody>
</table>

* Scale: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

b Students selecting agree or strongly agree.
encourage students to participate in international internship programs" (52.4%), and "The College of Agriculture should offer more international experiences for students" (51.9%).

Respondents indicated disagreement with two statements on the perception scale. A majority of the respondents (65.5%) disagreed or strongly disagreed with the statement "There is no need for the College of Agriculture to pursue internationalizing its curriculum because students will gain a global perspective elsewhere." A majority of the respondents (56.8%) also disagreed or strongly disagreed with the statement "The College of Agriculture should have a foreign language requirement."

The respondents indicated neutrality on the following three statements: "Understanding international issues helps a graduate of the College of Agriculture get a job," "The College of Agriculture should encourage all students to participate in a study abroad program," and "The College of Agriculture should have a global awareness course requirement."

Analysis of Variance

Using demographic data, respondents were grouped according to the following variables: age, gender, classification, major, place raised, home state or country, travel abroad, foreign languages studied, and involvement in international activities. The group data were then compared to the composite mean score (M=3.51) for the perceptions regarding the internationalization of the curriculum scale. The level of significance for all tests was set *a priori* at .05.
Analysis of variance indicated no significant differences among the respondents when grouped by age and analyzed with the perception variables. It can therefore be concluded that respondents' age had little influence on their perceptions regarding the internationalization of the curriculum.

T-test results indicated a significant difference among the respondents when grouped by gender (Table 10). The perception mean rating by female respondents was 3.72, while the mean rating for male respondents was 3.37. Therefore, it can be concluded that female respondents tended to agree more than males with the perception statements about internationalizing the curriculum.

Table 10

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>310</td>
<td>3.37</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>200</td>
<td>3.72</td>
<td>0.61</td>
<td>-6.07*</td>
</tr>
</tbody>
</table>

* p <.05, two-tailed.

Analysis of variance indicated a significant difference among the respondents when grouped by classification and analyzed with the perception variables (Table 11). To determine whether the significant F-ratio was due to differences between pairs of means, a post hoc multiple comparison test was performed. The Tukey method, also called the
HSD (honestly significant difference) test was used to make pair-wise comparisons while maintaining the error rate at the pre-established level of .05 (Hinkle, Wiersma, and Jurs, 1994). Juniors ($M=3.40$) were found to be significantly different from seniors ($M=3.59$) when analyzed with their perceptions regarding the internationalization of the curriculum in the College of Agriculture. Therefore, it can be concluded that seniors tended to agree more than juniors with the perception statements about internationalizing the curriculum in agriculture.

**Table 11**

Analysis of variance regarding perceptions on internationalization of the curriculum by classification of students in the College of Agriculture at Iowa State University ($N=524$)

<table>
<thead>
<tr>
<th>Classification</th>
<th>n</th>
<th>Mean</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshmen</td>
<td>2</td>
<td>4.63</td>
<td></td>
</tr>
<tr>
<td>Sophomores</td>
<td>128</td>
<td>3.53</td>
<td></td>
</tr>
<tr>
<td>Juniors*</td>
<td>193</td>
<td>3.40</td>
<td></td>
</tr>
<tr>
<td>Seniors*</td>
<td>195</td>
<td>3.59</td>
<td>4.50*</td>
</tr>
</tbody>
</table>

* p < .05.
*a Denotes pairs of groups significantly different at the .05 level.

Analysis of variance indicated no significant difference among the respondents when grouped by primary major and analyzed with the data from the perception scale. Therefore, it can be concluded that respondents' primary majors did not influence their perceptions regarding the internationalization of the curriculum in agriculture.
Analysis of variance indicated a significant difference among the respondents when grouped by place raised and analyzed with the data from the perception scale (Table 12). The Tukey procedure revealed that respondents who were raised in a town or city (M=3.74) differed significantly in their perceptions from those who were raised on a farm (M=3.41) or in a rural, non-farm setting (M=3.43). Therefore, it can be concluded that respondents raised in an urban area tended to agree more than those raised in a rural setting with the perception statements about internationalizing the curriculum in the College of Agriculture.

Analysis of variance indicated a significant difference among the respondents when grouped by home state or country and analyzed with the data from the perception scale (Table 13). The Tukey procedure revealed that respondents from countries other than the United States (M=4.28) differed significantly in their perceptions from those who were from Iowa (M=3.47) or Illinois (M=3.34). No other significant differences between pairs

### Table 12

<table>
<thead>
<tr>
<th>Place raised</th>
<th>n</th>
<th>Mean</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm*</td>
<td>290</td>
<td>3.41</td>
<td></td>
</tr>
<tr>
<td>Rural, not farm b</td>
<td>87</td>
<td>3.43</td>
<td></td>
</tr>
<tr>
<td>Town or city a,b</td>
<td>144</td>
<td>3.74</td>
<td>12.80*</td>
</tr>
</tbody>
</table>

* p < .05.
a,b Denote pairs of groups significantly different at the .05 level.
Table 13

Analysis of variance regarding perceptions on internationalization of the curriculum by
home state or country of students in the College of Agriculture at Iowa State University
(N=524)

<table>
<thead>
<tr>
<th>State or Country</th>
<th>n</th>
<th>Mean</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iowa</td>
<td>433</td>
<td>3.47</td>
<td></td>
</tr>
<tr>
<td>Illinois</td>
<td>25</td>
<td>3.34</td>
<td></td>
</tr>
<tr>
<td>Minnesota</td>
<td>9</td>
<td>3.46</td>
<td></td>
</tr>
<tr>
<td>Nebraska</td>
<td>7</td>
<td>3.98</td>
<td></td>
</tr>
<tr>
<td>Missouri</td>
<td>3</td>
<td>3.06</td>
<td></td>
</tr>
<tr>
<td>Michigan</td>
<td>3</td>
<td>3.92</td>
<td></td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>7</td>
<td>3.96</td>
<td></td>
</tr>
<tr>
<td>Other State</td>
<td>18</td>
<td>3.63</td>
<td></td>
</tr>
<tr>
<td>Other Country</td>
<td>16</td>
<td>4.28</td>
<td>4.49*</td>
</tr>
</tbody>
</table>

* p < .05.

A,b Denote pairs of groups significantly different at the .05 level.

were found. It can be concluded that respondents from other countries tended to agree
more with the perception statements about internationalizing the curriculum than those
from Iowa or Illinois.

T-test results indicated a significant difference in perceptions among the
respondents when grouped by experience abroad (Table 14). The perception mean rating
for respondents who had traveled abroad was 3.66, while the mean rating for those who
had not been abroad was 3.41. It can be concluded that respondents who had traveled
abroad tended to agree more with the perception statements regarding the
internationalization of the curriculum in the College of Agriculture.

Table 14

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have been abroad</td>
<td>204</td>
<td>3.66</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>Have not been abroad</td>
<td>308</td>
<td>3.41</td>
<td>0.61</td>
<td>3.97*</td>
</tr>
</tbody>
</table>

* p < .05, two-tailed.

T-test results indicated a significant difference in perceptions among the
respondents who had studied a foreign language and those who had not (Table 15). The
perception mean rating for respondents who had studied a foreign language was 3.53,
while the mean rating for those who had not was 3.35. It can be concluded that
respondents who had studied a foreign language tended to agree more with the perception
statements regarding the internationalization of the curriculum.

T-test results indicated a significant difference in perceptions among the
respondents who had participated in a local international activity and those who had not
(Table 16). The perception mean rating for respondents who had participated in a local
Table 15

Foreign language study differences in perceptions regarding the internationalization of the curriculum as reported by students in the College of Agriculture at Iowa State University (N=524)

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have studied foreign language</td>
<td>447</td>
<td>3.53</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>Have not studied foreign language</td>
<td>64</td>
<td>3.35</td>
<td>0.66</td>
<td>-2.09*</td>
</tr>
</tbody>
</table>

* p < .05, two-tailed.

The mean rating for those who have studied a foreign language was 3.53, while the mean rating for those who have not studied a foreign language was 3.35. It can be concluded that respondents who have studied a foreign language tended to agree more with the perception statements regarding the internationalization of the curriculum.

Table 16

Involvement in local international activities differences in perceptions regarding the internationalization of the curriculum as reported by students in the College of Agriculture at Iowa State University (N=524)

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have participated</td>
<td>182</td>
<td>3.69</td>
<td>0.70</td>
<td></td>
</tr>
<tr>
<td>Have not participated</td>
<td>331</td>
<td>3.41</td>
<td>0.63</td>
<td>4.67*</td>
</tr>
</tbody>
</table>

* p < .05, two-tailed.
T-test results indicated a significant difference in perceptions among the respondents who had participated in a study abroad program and those who had not (Table 17). The perception mean rating for respondents who had studied abroad was 4.31, while the mean rating for those who had not was 3.49. It can be concluded that respondents who had participated in a study abroad program tended to agree more with the perception statements about internationalizing the curriculum.

No significant differences in perceptions were found among the respondents who had or had not participated in a travel course. It can be concluded that participation in a travel course did not have a statistically significant influence on respondents' perceptions regarding the internationalization of the curriculum in the College of Agriculture.

Table 17

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have studied abroad</td>
<td>11</td>
<td>4.31</td>
<td>0.77</td>
<td></td>
</tr>
<tr>
<td>Have not studied abroad</td>
<td>505</td>
<td>3.49</td>
<td>0.66</td>
<td>4.09*</td>
</tr>
</tbody>
</table>

* p <.05, two-tailed.
T-test results indicated a significant difference in perceptions among the respondents who had participated in an on-campus international activity and those who had not (Table 18). The perception mean rating for respondents who had participated in an on-campus international activity was 3.84, while the mean rating for those who had not was 3.46. It can be concluded that respondents who had participated in an on-campus international activity tended to be more in agreement with the perception statements regarding the internationalization of the curriculum in the College of Agriculture at Iowa State University.

Table 18

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have participated</td>
<td>60</td>
<td>3.84</td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>Have not participated</td>
<td>448</td>
<td>3.46</td>
<td>0.66</td>
<td>4.24*</td>
</tr>
</tbody>
</table>

* p <.05, two-tailed.

T-test results indicated a significant difference in perceptions among the respondents who had participated in an international internship program and those who had not (Table 19). The perception mean rating for respondents who had worked abroad was 4.07, while the mean rating for those who had not was 3.49. It can be concluded that
respondents who had participated in an international internship program tended to be more in agreement with the perception statements regarding the internationalization of the curriculum in the College of Agriculture.

The final question on the survey instrument requested respondents to "please write any other comments or suggestions you have concerning the internationalization of the curriculum in the College of Agriculture." Student responses varied greatly; however,

Table 19

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have worked abroad</td>
<td>8</td>
<td>4.07</td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>Have not worked abroad</td>
<td>500</td>
<td>3.49</td>
<td>0.67</td>
<td>2.44*</td>
</tr>
</tbody>
</table>

*p <.05, two-tailed.

several common themes emerged from the written comments. The most common theme (68 instances) was that internationalization of the curriculum was okay, but that no more course requirements should be added. Some of the students said that no courses should be required because internationalization does not apply to everyone. Several responses indicated that "forcing" internationalization on students would have a negative effect.
Many students complained of an already overloaded curriculum and too many requirements.

The second most common theme (63 instances) included responses that were positive towards internationalizing the curriculum. Several students shared their international experiences and wrote about how those experiences had made them "a better person." Other students recognized the importance of being globally aware due to recent changes such as the North American Free Trade Agreement (NAFTA) and the General Agreement on Tariffs and Trade (GATT). Many students wrote about the need for more international information in their courses.

A third common theme (22 instances) included responses that were negative towards internationalizing the curriculum. Statements such as the following were rather alarming: "There is [sic] already to [sic] damn many foreigners in the USA. I will not travel to their country and bring myself to their level." However, most students who had a negative opinion concerning the internationalization of the curriculum simply did not see how it applied to them as students of agriculture.

Another common theme (13 instances) was the plea for no foreign language requirement. On the other hand, eight students wrote that a foreign language requirement would be a good idea. Twelve respondents emphasized the need for more information about international opportunities, and eight respondents complained of the lack of financial resources to participate in international activities.
Summary

The findings indicated that overall, respondents were slightly in agreement with the perception statements regarding the internationalization of the curriculum in the College of Agriculture. However, the data showed that students who had participated in some type of international activity tended to agree more with the perception statements about internationalizing the curriculum in agriculture. International activities included travel abroad, study abroad, work abroad, foreign language study, and participation in local and on-campus international activities.

Certain demographic characteristics also appeared to have an impact on student perceptions regarding the internationalization of the curriculum in the College of Agriculture. Female respondents tended to agree more than males with the perception statements about internationalizing the curriculum. In addition, the location in which students were raised appeared to play a role in their perceptions regarding the internationalization of the curriculum in agriculture. Respondents from urban areas tended to agree more than those from rural areas, and international students tended to agree the most with the perception statements regarding the internationalization of the curriculum in the College of Agriculture.
CHAPTER V. DISCUSSION

The overall purpose of this study was to assess the perceptions of undergraduate students regarding the internationalization of the curriculum in the College of Agriculture at Iowa State University. No studies examining student perceptions in this area were discovered during the review of the literature. This chapter will discuss the major findings of the study.

Student Perceptions Regarding the Internationalization of the Curriculum in the College of Agriculture

The students in this study held slightly favorable perceptions regarding the internationalization of the curriculum in agriculture. The overall mean rating for the perceptions scale was 3.51, just falling within the "agree" category (3.50 to 4.50). In this study, students also rated the international content in their courses in the College of Agriculture and indicated the methods by which instructors were infusing a global perspective into their courses. In addition, this study found that students' participation in international activities had an impact on their perceptions regarding the internationalization of the curriculum. Certain demographic characteristics were also found to influence students' perceptions.
Internationalization of Courses in the College of Agriculture

The findings of King's (1991) study, based on input from faculty, indicated that a majority (52.3%) of the teaching faculty in the College of Agriculture felt they were utilizing some activity to add a global perspective to their instruction. This study, however, was based on student input. The students in this study were asked how instructors in the College of Agriculture were infusing a global perspective into their courses. A majority of the respondents (73.1%) indicated that instructors infused a global perspective through discussion of their own experiences. Over fifty percent of the respondents said films, slides, and videos were used to infuse a global perspective, while nearly fifty percent said instructors compared and contrasted agricultural systems. These methods all require students to listen passively rather than participate actively. Other less commonly used methods included discussion of student experiences, course trips, case studies, guest speakers, and assigned readings. Many of the less commonly used methods would get students actively involved in an international activity.

The students were asked to rate the amount of international content in all of the courses they had taken in each department in the College of Agriculture. The following scale was used: "low" = almost no international content, "medium" = some international content, and "high" = a great deal of international content. If students had not taken a course in the department, they were asked to circle "NA", or not applicable. Only one department, Sociology, received a substantial number of "high" ratings among respondents having taken classes in that department. Departments receiving the most "medium" ratings from former students included Agricultural Economics, Forestry, Animal Science,
Agronomy, and Sociology. All other departments received a majority of "low" ratings from the respondents. The fact that the respondents rated courses in ten of the fifteen departments in the College of Agriculture as "low", or having little or no international content, indicates the need for more effective methods of internationalizing courses. Dewey (1990) advocated shifting the center of gravity from the teacher to the student by using active rather than passive teaching methods.

Student responses to the individual perception statements seemed to indicate their feelings about how the curriculum in the College of Agriculture should be internationalized. A majority of the respondents agreed or strongly agreed with the statements, "Today's college graduate in agriculture needs an understanding of agricultural systems around the world" and "ISU students should develop a greater awareness of international issues in agriculture." It was assumed that the students expected to gain this international understanding and awareness through their college curriculum, especially since a majority of the students disagreed or strongly disagreed with the statement, "There is no need for the College of Agriculture to pursue internationalizing its curriculum because students will gain a global perspective elsewhere."

A majority of the respondents also agreed or strongly agreed with the statements, "Professors should give examples from other countries' agricultural systems when teaching about U.S. systems" and "Professors in the College of Agriculture should infuse global awareness into the courses they teach." Students' agreement with these two statements seemed to indicate that they want more internationalized courses. Another statement with which a majority of the respondents agreed was "The curriculum of the College of
Agriculture should reflect a knowledge of the global community." Here again students appeared to be calling for increased internationalization of the curriculum.

A majority of the respondents indicated neutrality regarding the statement, "The College of Agriculture should have a global awareness course requirement." It was interesting to find that students were neutral about the College of Agriculture having a global awareness course requirement for two reasons. First, at the time of this study, the college already had a global awareness course requirement in place. Second, a more negative reaction to this statement was expected since students are generally not supportive of any additional course requirements. It may be that students were not aware of the global awareness course requirement, or that they were aware of it but were not certain that it was the best way to internationalize the curriculum. Another possibility is that the requirement did not pertain to all of the students in this study because their curriculum may have been based on an earlier course catalog before the requirement was implemented.

There was a great deal of discussion in the literature concerning whether it is more effective to require certain "internationalized" courses or to infuse global perspectives throughout all courses. Groennings (1990) explained that course requirements are the easiest method of ensuring that students are exposed to international content; however, he advocated the infusion of international perspectives throughout the curriculum. Smuckler and Sommers (1988) agreed that increasing the international content of existing courses is the most effective method over the long run. It seems logical that because of the global
nature of agriculture, courses in the College of Agriculture could be easily internationalized.

Students' written comments followed three major themes: 1) internationalizing the curriculum is a good idea, but no more course requirements should be added; 2) the curriculum needs to be more internationalized; and 3) the curriculum does not need to be internationalized. Since the second and third themes seem to be conflicting, it should be noted that almost three times as many students wrote positive statements (63 statements) about internationalizing the curriculum as opposed to negative statements (22 statements). The written comments indicated that students felt a need for internationalizing the curriculum in the College of Agriculture, but were opposed to adding any more course requirements to achieve this. It appeared that students favored infusing an international perspective into all courses rather than requiring them to choose from a list of "international" courses.

**International Activities and Barriers**

The data provided a strong rationale for getting students involved in international activities. Even students who had participated in local or on-campus international events tended to agree more with the perception statements regarding the internationalization of the agricultural curriculum. This was also the case with students who had traveled, worked, or studied abroad. In addition, students who had studied a foreign language also tended to agree more with the perception statements. The only international activity that did not have a significant impact on student perceptions was participation in the
Agriculture Travel Course. This does not appear to be due to the small number (n=23) of students who had participated, since an even smaller number had studied abroad (n=11) and worked abroad (n=8). Since these trips are usually short term, it could be that students are not getting the kind of exposure to another culture that other international activities provide. This program is conducted without "home stays" and tends to be focused on production agricultural practices in animal and plant sciences to the exclusion of one on one contact with local families and home life.

Sixty percent of the students in this study had never been abroad. Forty percent of the respondents had spent time in a country other than the United States or their home country. As expected, Western Europe was the most common destination of the respondents, having been visited by 19.8 percent. Not surprisingly, the next most common destinations were Canada with 15.6 percent and Mexico with 12.4 percent of the respondents. Regions least visited by the respondents were Africa and the Middle East.

Most of the respondents' sojourns were short-term and for pleasure. Approximately 33 percent of the respondents spent between one week and one month in the country or region they visited. Almost 16 percent of the respondents spent less than one week. Less than four percent of the respondents had spent more than six months in another country or region. Over 45% of the respondents indicated that their time abroad had been spent vacationing. Approximately nine percent had been part of an organized exchange or tour group. About five percent of the respondents had worked abroad, and approximately three percent had studied abroad.
Even though most of these experiences abroad were short-term and for pleasure, they were found to have an influence on student perceptions regarding the internationalization of the curriculum in agriculture.

As expected, almost all of the respondents reported English as their native language. Spanish was the most commonly studied foreign language, followed by French and German. A very small percentage of the students had studied Russian, Latin, Japanese, Chinese, and other languages. A majority of the students had studied a foreign language for two years or less, except students of German, a majority of whom had studied the language longer than two years. Only 12.8 percent of the respondents reported that they had never studied a foreign language.

The high number of students who reported studying a foreign language was somewhat surprising. However, since the College of Agriculture does not require a foreign language, it is assumed that many of the respondents studied a foreign language at the secondary school level. The most common languages studied were the same as those reported by Lambert (1993), who went on to explain that "since for most individuals the eventual goal is not actual adult use, it almost does not matter which languages are studied" (p. 316). This study found that a majority of the respondents had gained only a limited level of fluency in the foreign language studied. Less than one percent of the respondents indicated that they were fluent in the language studied.

A majority of the respondents disagreed or strongly disagreed with the statement, "The College of Agriculture should have a foreign language requirement." Even though a majority of the students had already studied a foreign language, the negative response to
this statement is not surprising. With a full set of requirements and a dwindling number of electives, students in general are not favorable towards adding more requirements to the curriculum. Kellogg (1984) explained that language requirements are not needed in colleges of agriculture, "but some incentives need to be developed so a greater number of agricultural students take language courses" (p. 22). Therefore, requiring a foreign language would probably be less effective than developing other strategies to encourage agricultural students to study foreign languages.

It has been recognized that one need not leave home to participate in an international activity. Hertford and Hartley (1987) admitted the difficulty involved in providing students with experiential learning opportunities overseas; however, they argued that certain local activities can be "powerful instruments in the international education of students" (p. 48). Approximately 35 percent of the respondents in this study indicated that they had participated in a local international activity. These activities ranged from hometown cultural celebrations to international food festivals at the university. Several students credited high school foreign language clubs with exposing them to another culture. Common locations for local international events were university campuses and churches. Other students responded that international events had taken place at their elementary, middle, or high school, through their family or friends, in an organization, at work, or in their community. Even though these international events were local, they were found to have an impact on student perceptions regarding the internationalization of the curriculum in agriculture.
Approximately two percent of the respondents indicated that they had participated in a study abroad program. This number was somewhat higher than that reported by the *Ad Hoc Committee on the Internationalization of Iowa State University*, which stated that "slightly more than one percent" of ISU students experience study abroad as a part of their university training (Whiteford, 1990, p. 24). This number was also higher than the 0.7 percent of students in agriculture in the United States who studied abroad in 1991-92 as reported by Zikopoulos (1992) in *Open Doors*. The Iowa State University Study Abroad Center recorded that 40 (1.5%) students in the College of Agriculture had studied or worked abroad in 1993-94.

Major barriers to study abroad indicated by the respondents were financial resources, interruption in the academic program, and lack of language skills. Few would argue with students' perceptions that study abroad programs are expensive. Additional financial resources for students wanting to study abroad should be made available, otherwise, students of lower socioeconomic status will continue to be under-represented. According to Aigner et al. (1992), two other critical factors to increasing the number of students studying abroad are the integration of study abroad into existing curricula and requirements and its advocation by faculty advisors. If students see study abroad as an "interruption" that does not fit into their academic program, what incentives do they have to participate? Lambert (1990) also noted that overseas courses are treated almost entirely as part of the elective portion of the curriculum. "If the current pattern is to be changed, a greater part of study abroad must somehow be related to students' majors" (p. 3). Lambert (1993) placed the responsibility for "the embedding of study abroad courses in
the education career of students" on the students' academic departments at their home institutions (p. 313). Foreign language fluency is rarely required for study abroad; however, students did not seem to be aware of this.

An additional barrier to study abroad indicated by many of the respondents was a lack of awareness about opportunities. Trevor Nelson (personal communication, April 27, 1995), program coordinator at the Iowa State University Study Abroad Center explained that study abroad programs are advertised in many ways, including fliers, brochures, a home page on the World Wide Web, informational meetings, visits to English and orientation courses, and articles and advertisements in the campus newspaper. However, he said that the best advertisement was students sharing their experiences with others, over which the center had little control.

Another type of international experience available to students in the College of Agriculture at Iowa State University is the travel course. Over four percent of the respondents indicated that they had been involved in a travel course. Travel courses mostly consist of short-term trips (2 to 5 weeks) organized by the Departments of Agronomy and Animal Science which usually take place during the semester or summer breaks. The Agriculture Travel Course is offered twice each year and students receive academic credit for their participation. Depending on the trip, an average of 15 to 30 students may participate.

According to one of the program coordinators, Dr. Thomas Loynachan (personal communication, April 27, 1995), the cost of the most recent Agriculture Travel Course was about $3100 per student. It was not surprising, therefore, that students indicated
financial resources as a major barrier to participation in travel courses. Students need to have access to more financial resources if the quantity and diversity of students participating in these activities is going to be changed. Lack of awareness again rated high among barriers to participation. Dr. Loynachan indicated that the courses have been advertised in the general catalog, through fliers, and through word of mouth. Other methods of advertising these activities should be investigated in order to reach a larger number of students.

On-campus international activities give students the opportunity to explore another culture without leaving home. Less than 12 percent of the respondents indicated having participated in on-campus international activities. A majority of the respondents said they did not participate in such activities due to a lack of interest. In addition, many of the respondents indicated they were not aware of these activities. It seems that many on-campus international activities are seen as being for international students only. These events are often hosted by international student groups, which may add to this misconception. Along with improving the publicity for these events, the hosts should make an effort to include students from all backgrounds.

Another international experience available to students is participation in work abroad, or international internship programs. Only 1.6 percent of the respondents indicated that they had participated in an international internship program. A majority of the respondents said that they did not work abroad because of the interruption in their academic program. Opportunities for work abroad could be arranged during the summer to avoid this perceived barrier. Many respondents claimed that they were not aware of
opportunities to work abroad. This may be true, according to the director of the Agricultural Placement Office at Iowa State University. Roger Bruene (personal communication, April 28, 1995) said that there are few opportunities for international internships and that students are not routinely recruited for these types of positions. He explained that often the student is the instigator in locating an international internship.

Students agreed with the perception statement, "The College of Agriculture should encourage students to participate in international internship programs." This response seemed to indicate that students would like the college to promote this type of international activity. As more agricultural companies develop markets overseas, opportunities for students to participate in international internships should increase. The College of Agriculture should work more closely with agricultural companies to offer students opportunities to gain international work experiences.

Students also agreed with the perception statement, "The College of Agriculture should offer more international experiences for students." Whether these international experiences occur overseas or on-campus, they tend to impact the way students think about the internationalization of the curriculum.

Comparison of Demographic Characteristics

Almost 60 percent of the respondents in this study were male, and 39 percent were female. These figures correspond closely with the College of Agriculture enrollment figures. In the fall of 1994, 65 percent of the students in the college were male and 35 percent were female. Gender was found to make a difference in student perceptions, with
females tending to agree more than males with the perception statements regarding the internationalization of the curriculum. The percentage of female students in the College of Agriculture has been steadily increasing over the years, and this trend is expected to continue. If females truly are more interested in an internationalized curriculum, perhaps as more of them enter the field of agriculture, student perceptions will become more positive regarding the internationalization of the curriculum in agriculture.

When considering classification, the largest group of respondents was seniors, followed by juniors and then sophomores. Seniors tended to agree more than juniors with the perception statements regarding the internationalization of the curriculum. The fact that seniors seemed to find an internationalized curriculum more important was not surprising. Seniors should have a better idea of what will be expected of them as they leave the university for the world of work.

The most common primary majors among the respondents included animal science, agricultural business, and agricultural studies. One might think that students in such technical areas of agriculture would be less receptive to internationalization of the curriculum; however, this was not found to be true in this study. Primary major was not found to make a significant difference in student perceptions regarding the internationalization of the curriculum in agriculture.

A majority of the respondents (55.3%) indicated that they had been raised on a farm. About 17 percent of the respondents grew up in a rural, non-farm environment, while about 28 percent lived in towns or cities. In addition, the students were asked to indicate the population of the place they considered to be their hometown. The
respondents were spread across the six population categories, with the largest number of respondents claiming hometowns with populations of 2500 to 9999 people.

The location in which students were raised was found to play a significant role in their perceptions. Respondents raised in an urban area tended to agree more often with the perception statements regarding the internationalization of the curriculum than those raised in a rural setting. Those from larger cities (populations of 50,000 and higher) agreed more often than those from smaller towns (populations of 500 to 9999). It is likely that urban students majoring in agriculture view the field in a different way than agriculture students coming from rural areas. These urbanites may have a better understanding of how agriculture fits into the larger picture, including on the global level.

A majority (82.6%) of the students responding to the survey reported that they were from Iowa. Almost 9 percent of the respondents were from another Midwestern state. Ninety-six percent of the respondents were U.S. citizens, while approximately three percent of the respondents were international students. The percentage of international students among the respondents was slightly higher than the percentage of international students in the college. According to the Office of the Registrar, in 1994-95 there were 54 (2.1%) international students in the College of Agriculture.

Respondents from other countries tended to agree more with the perception statements regarding the internationalization of the curriculum than those from Iowa or Illinois. It was certainly not surprising that international students feel a need to internationalize the curriculum in the College of Agriculture. Even though their numbers are not large, the college needs to determine if the curriculum is addressing the needs of
this group. One-third of all students enrolled outside of their home country enroll in programs in the U.S. (Stevenson, 1994). Many argue that these international students do not fit into the mission of the land grand university; however, others see them as clients paying for the services of the university and feel they should be treated as such. Still others view international students as a resource for internationalizing courses. Hammig and Rosson (1989) suggested that allowing foreign students to lead class discussions from the perspective of their home environment would increase awareness of world agriculture. The *Ad Hoc* Committee on Internationalization of Iowa State University (Whiteford, 1990) came to the following conclusion regarding international students and scholars: "If the university continues to actively recruit international students and scholars, then it will be obligated to create a campus community allowing these individuals to reach their full potential."

**Summary**

Overall, the students in this study held slightly favorable perceptions regarding the internationalization of the curriculum in the College of Agriculture. Various demographic characteristics had a significant impact on how respondents perceived the internationalization of the curriculum in the College of Agriculture. More likely to agree with the perception statements were females, seniors, students from large cities, and international students.

The data in this study suggested that international activities made a significant difference in student perceptions. Even students who had participated in local
international activities were more likely to agree with the perception statements regarding the internationalization of the curriculum in the College of Agriculture.

Students indicated that instructors in the College of Agriculture were infusing a global perspective mainly through passive teaching methods. The students rated courses in ten of the fifteen departments in the College of Agriculture as having little or no international content. The use of more active methods of infusing a global perspective could increase the internationalization of the curriculum for students in agriculture. The findings also indicated that students favored infusing an international perspective into all courses rather than requiring them to choose from a list of required "international" courses. This appears to be a possibility given the increasingly global nature of the field of agriculture.
CHAPTER VI. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents a summary of the study and its major findings, conclusions and recommendations based on the findings, and implications and educational significance of the study.

Summary

Internationalization of the curriculum is an issue facing institutions of higher education nationwide, and Iowa State University is no exception. As our economy, and our daily lives become more intertwined with those of other nations and other peoples, it is imperative that our graduates have the global understanding necessary to function in our society. Groennings (1990) stated, "As the general purpose of education is to prepare students for the world in which they are living, there is a growing expectation that the curriculum must enlarge our students' understanding of the new international circumstances and of peoples and cultures beyond our borders" (p. 11). Lambert (1989) stressed the "need to introduce an international dimension into the education of students while they are still in school and college so that they will be able to perceive and put into context events that take place abroad or across our internal cultural divisions" (p. 2). Placing the responsibility for internationalization on the curriculum originates from the expectation that the curriculum should respond to changes in society in order to better prepare students for the future. The future is global, especially in agriculture.
Schuh (1989) explained that "U.S. farmers no longer compete with the farmers down the road or the farmers in other states. They now compete with farmers in Argentina, Brazil and other potentially important countries. Moreover, their markets also are in other countries" (p. 8). McBreen (1992) indicated that while there appears to be no lack of understanding of the international impact on agriculture, "almost no real progress has been made to ensure that graduates of our colleges of agriculture are internationally literate" (p. 253). Henson and Noel (1988) stressed the important responsibility for colleges of agriculture to broaden their understanding of the world and their ability to generate, apply, and transfer relevant information to better prepare their graduates and clientele to work and live in an interdependent world. Internationalization of the curriculum in the College of Agriculture at Iowa State University should be a priority in order to prepare today's students for life in the 21st century.

Purpose

The overall purpose of this study was to assess the perceptions of undergraduate students regarding the internationalization of the curriculum in the College of Agriculture at Iowa State University. The specific objectives of the study were to: 1) identify undergraduate students' perceptions regarding the internationalization of the College of Agriculture curriculum; 2) assess student involvement in international activities; 3) identify possible barriers to student participation in international activities; and 4) identify demographic characteristics of participants in the study.
Methodology

The population for this study included all undergraduate students enrolled in the College of Agriculture at Iowa State University in the fall of 1994. A random sample of 1000 students was selected from enrollment lists provided by the Agriculture Student Services Office. Of those surveyed, 524 respondents provided usable data for this study.

A mailed questionnaire was used to collect data for this study. The instrument was divided into four parts based on the objectives of the study.

Part one was designed to identify undergraduate students' perceptions regarding the internationalization of the curriculum in the College of Agriculture. A five-point, Likert-type scale was used to study the students' perceptions regarding the internationalization of the curriculum. Students were asked to respond to twelve statements by circling one of the descriptors: strongly disagree, disagree, neutral, agree, or strongly agree.

Part two sought to assess student involvement in international activities. Students were asked to indicate their experiences abroad, foreign languages studied, local involvement in international activities, and the internationalization of their courses in the College of Agriculture.

Part three dealt with identification of possible barriers to student participation in international activities. Students were asked to indicate what prevented them from participating in study abroad programs, travel courses, on-campus international activities, and international internships.
Part four identified the respondents' demographic characteristics. Students were asked to indicate their gender, age, classification, majors and minors, place where they were raised, and their citizenship. In addition, there was an open ended question at the end of this section asking students to write any other comments or suggestions they had concerning the internationalization of the curriculum in the College of Agriculture.

Data from the 524 usable returned questionnaires were analyzed using the Statistical Package for the Social Sciences for the personal computer (SPSSx-PC). Means, modes, standard deviations, frequencies, and percentages were calculated to summarize the data. One-way analyses of variance and t-tests were computed to compare selected demographic variables to the perceptions scale. The alpha level was established \textit{a priori} at .05 for all tests.

Findings

Analysis of the demographic information revealed that a majority of the respondents were male, between the ages of 18 and 22, and raised on a farm in Iowa. This was typical of students in the College of Agriculture at the time of this study.

When assessing student involvement in international activities, it was found that a majority of the students in this study had never been abroad. Of the 40 percent who had visited another country, most traveled to Western Europe, Canada, or Mexico. These trips were typically short-term and for pleasure. Most of the respondents spent between one week and one month in the country or region they visited, and their time was spent vacationing.
English was the native language of all but a few of the respondents. Spanish, French, and German were the most commonly studied foreign languages. Most of the students had studied a foreign language for two years or less and reported their level of fluency as limited. Only 12.8 percent of the respondents reported that they had never studied a foreign language.

Approximately 35 percent of the respondents indicated that they had participated in a local international activity. These activities ranged from hometown cultural celebrations to international food festivals at the university. Common locations for such events were university campuses and churches.

Respondents indicated that instructors infused a global perspective in their courses through discussion of their own experiences, through films, slides, and videos, and by comparing and contrasting systems. The respondents rated courses in ten of the fifteen departments in the College of Agriculture as "low", or having little or no international content.

Respondents indicated barriers that prevented them from participating in international activities. Major barriers to study abroad were financial resources and interruption in the academic program. Participation in travel courses was hindered by financial resources, while interruption in the academic program was a barrier to work abroad. Lack of interest was indicated as the major barrier to participation in on-campus international activities. Lack of awareness of opportunities was indicated by respondents as a barrier to participation in all international activities (study abroad, travel courses, on-campus international activities, and work abroad). Participation was low among
respondents in all international activities: study abroad (2.1%), travel courses (4.5%), on-campus international activities (11.6%), and work abroad (1.6%).

When the data from the perceptions scale were analyzed it was found that overall, the respondents held slightly favorable perceptions regarding the internationalization of the curriculum in agriculture. Most respondents agreed with the statement "Today's college graduate in agriculture needs an understanding of agricultural systems around the world." The fewest respondents agreed with the statement "There is no need for the College of Agriculture to pursue internationalizing its curriculum because students will gain a global perspective elsewhere."

Various demographic characteristics had a significant impact on how respondents perceived the internationalization of the curriculum in the College of Agriculture. More likely to agree with the perception statements were females, seniors, students from large cities, and international students.

The data from this study suggested that the Agriculture Travel Course did not make a significant difference in student perceptions regarding the internationalization of the curriculum. Other international activities, however, did make a significant difference in student perceptions. Even students who had participated in local international activities were more likely to agree with the perception statements regarding the internationalization of the curriculum in the College of Agriculture.
Conclusions

The objectives of this study were to identify undergraduate students' perceptions regarding the internationalization of the College of Agriculture curriculum, to assess student involvement in international activities, to identify possible barriers to student participation in international activities, and to identify demographic characteristics of participants in the study.

Based on the results of the study, the following conclusions were drawn:

The slight agreement of the respondents with the perception statements seemed to indicate that students do not fully support the internationalization of the curriculum in the College of Agriculture. However, the written comments by the respondents indicated that students approve of internationalizing the curriculum so long as no more required courses are added to achieve this goal. Student responses to individual perception statements also supported this conclusion. Students seemed to favor the infusion of international perspectives throughout their courses.

Students indicated that the limited methods used by instructors in the College of Agriculture to infuse a global perspective into their courses were not effective. Respondents indicated that instructors infused a global perspective into their courses through discussion of their own experiences, through films, slides, and videos, and by comparing and contrasting systems. These methods all require students to passively listen rather than actively participate. The methods were apparently not effective with students since, according to the respondents, most courses in the College of Agriculture contained little or no international content.
International activities made a significant difference in student perceptions regarding the internationalization of the curriculum. Even students who had participated in local international activities were more likely to agree with the perception statements regarding the internationalization of the curriculum in the College of Agriculture. However, very few students in the College of Agriculture at Iowa State University had participated in international activities. This study found that a majority of the students in the College of Agriculture had never been to another country or even participated in a local international activity. Participation was low in study abroad programs, travel courses, on-campus international activities, and international internships. A majority of the students had studied a foreign language, but usually for two years or less and achieving only limited fluency.

Significant barriers existed which prevented students in the College of Agriculture from participating in international activities. Financial resources, interruption in the academic program, and lack of information about opportunities were all barriers indicated by students to participation in these activities.

**Recommendations**

The following recommendations were made based on the conclusions drawn from the findings of this study.

1. The findings of this study indicated that students supported the internationalization of the curriculum in the College of Agriculture, so long as no additional course requirements are imposed. Therefore, it is recommended that the College of
Agriculture internationalize existing courses rather than only requiring students to take specific "international" courses. Since agriculture is an increasingly global field of study, instructors should be able to include international content in all courses. The college should assist faculty in developing effective strategies for internationalizing their courses.

2. The findings of this study indicated that students perceived the limited methods used by instructors in the College of Agriculture to infuse a global perspective into their courses to be ineffective. According to student responses, the methods used most often by instructors were all passive. Therefore, it is recommended that the College of Agriculture encourage all faculty members to infuse a global perspective into their courses through more active methods.

3. This study found that very few students in the College of Agriculture had participated in any kind of international activity, other than foreign language study. In addition, the findings indicated that international activities made a significant difference in student perceptions regarding the internationalization of the curriculum. Therefore, it is recommended that the College of Agriculture find ways to encourage students to participate in all kinds of international activities, from on-campus events to international work and study opportunities.

4. The findings of this study indicated that significant barriers existed which prevented students in the College of Agriculture from participating in international activities. These barriers included financial resources, interruption in the academic program, and lack of awareness about opportunities. Therefore, it is recommended that the College
of Agriculture explore ways to assist students with the costs of study abroad programs and travel courses. It is also recommended that the college work with advisors to integrate international experiences into programs of study. Additional methods of advertising international activities should be developed in order to inform students about these opportunities.

Recommendations for Further Research

1. This study was limited to undergraduates in the College of Agriculture at Iowa State University. Broader studies of agriculture students at other institutions and of students in other disciplines are recommended.

2. This study found that the methods used by instructors in the College of Agriculture to infuse a global perspective into their courses were limited and not effective with students. It is recommended that a study be conducted to determine the most effective methods of infusing a global perspective into courses in the College of Agriculture.

3. Studies of undergraduate students should be conducted periodically to assess the College of Agriculture's progress in internationalizing the curriculum.

Implications and Educational Significance of the Study

The purpose of this study was to assess the perceptions of undergraduate students regarding the internationalization of the curriculum in the College of Agriculture at Iowa State University.
This study has provided important information about the perceptions held by undergraduates in the College of Agriculture at Iowa State University regarding the internationalization of the curriculum, student participation in international activities, and barriers to student participation in international activities.

The results of this study may assist the College of Agriculture in determining how to proceed with its internationalization efforts, as well as how to get more students involved in the existing international activities available on campus. This study may also prompt other colleges within Iowa State University, as well as other institutions, to undertake similar studies to determine their students' perceptions regarding the internationalization of the curriculum.

This study has special implications to agricultural education. The study found that participation in international activities had an impact on student perceptions regarding the internationalization of the curriculum. Agricultural education was founded on the principle of experiential learning, and therefore may be able to assist other departments in the College of Agriculture in developing classroom activities (such as case studies and role playing) to enhance the international content in their courses. The wide variety of instructional techniques available for giving instruction and managing learning need to be shared with all College of Agriculture faculty. Agricultural Education as a discipline could enhance the learning environment in all other areas of agriculture, specifically as it pertains to internationalization.
REFERENCES


King, D. R. (1991). *Perceptions regarding the infusion of a global perspective into the curriculum as identified by the faculty of the College of Agriculture at Iowa State University*. Doctoral dissertation, Iowa State University, Ames, Iowa.


Lurie, J. (1982). America...globally blind, deaf, and dumb: A shocking report of our incompetence through ignorance in dealing with other countries. *Foreign Language Annals, 15*(6), 413-420.


ACKNOWLEDGEMENTS

It would not have been possible to complete this work without the help and support of many friends and family whose contributions I wish to acknowledge here.

Special thanks to my major professor, advisor, and friend, Dr. Robert Martin. Through the years he encouraged and nurtured my academic and professional growth and helped to build my confidence. Many times it seemed that he had more faith in me than I had in myself. I truly appreciate all the time and energy he put into this work.

Thanks also to the other members of my committee, Dr. Wade Miller and Dr. Gail Nonnecke, for their advice and guidance in the completion of this research.

I also appreciate Dr. Gaylan Scofield's time and patience in helping with the statistical analysis of the data in this study. He always took the time to answer my questions, no matter how busy he was.

Thank you to the Department of Agricultural Education and Studies and to the College of Education for employing me as a graduate assistant. This financial support made higher education a possibility for me.

Thanks also to College of Agriculture Associate Dean Detroy Green, who cared enough about what students thought to provide funding for this study.

Special thanks to my parents, Gayle and Linda Sammons, for supporting my efforts and instilling in me a love of agriculture and of learning that will surely last my lifetime.

My late grandmother, Lillian Dodd, told me when I was a little girl that I could be anything I wanted to be. I dedicate this work to her memory.
I also want to acknowledge my special friend, Dawn Hildebrandt. She has served as my computer consultant, babysitter, confidant, and at times she helped to preserve my sanity.

I especially want to thank my husband and best friend, Roman Pogranichniy, who rarely complained when he had to help around the house and always believed in me. And to our son Nicholas, whose smiles and unconditional love kept me going, I want to say, "I did it for you."

Above all, I thank God, who makes all things possible. "To fear the Lord is true wisdom" (Job 28:28).
APPENDIX A. HUMAN SUBJECTS REVIEW COMMITTEE
APPROVAL FORM
Checklist for Attachments and Time Schedule

The following are attached (please check):

12. □ Letter or written statement to subjects indicating clearly:
   a) purpose of the research
   b) the use of any identifier codes (names, #s), how they will be used, and when they will be
      removed (see Item 17)
   c) an estimate of time needed for participation in the research and the place
   d) if applicable, location of the research activity
   e) how you will ensure confidentiality
   f) in a longitudinal study, note when and how you will contact subjects later
   g) participation is voluntary; non-participation will not affect evaluations of the subject

13. □ Consent form (if applicable)

14. □ Letter of approval for research from cooperating organizations or institutions (if applicable)

15. □ Data-gathering instruments

16. Anticipated dates for contact with subjects:

   First Contact
   11/15/94

   Last Contact
   12/09/94

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual
    tapes will be erased:
    01/15/95

18. Signature of Departmental Executive Officer Department or Administrative Unit
    Date
    11/08/94  Agricultural Education and Studies

19. Decision of the University Human Subjects Review Committee:
    X Project Approved  □ Project Not Approved  □ No Action Required

   Patricia M. Keith
   Name of Committee Chairperson  Date
   11/10/94  Signature of Committee Chairperson
APPENDIX B. COVER LETTER AND DATA COLLECTION INSTRUMENT
November 27, 1994

Dear Student:

Many colleges and universities around the country have been examining the need to include international themes in their curricula. Recently, several studies have been conducted to discover what faculty members, young farmers, and agribusiness people think about the need for internationalization of the curriculum in the College of Agriculture. We believe that it is essential to find out what you, as a student in the College of Agriculture, think about this important issue. After all, the contents of the curriculum affect you more directly than any of the other groups mentioned above! Would you please spend a few minutes filling out the enclosed questionnaire so that the College of Agriculture administration will know how students feel about internationalizing the curriculum? The results of the study along with student recommendations will be presented to the Associate Dean for Academic Programs and other college administrators. The study will also be used in completing a master's thesis.

The information you provide will be strictly confidential and the reporting of the results will be limited to group summary information. All questionnaires will be destroyed once the data is summarized. The questionnaire will take approximately 15 minutes to complete. If you choose not to participate in this study, notify us by returning the blank questionnaire so you will not be contacted again.

For your convenience, a pre-addressed, stamped envelope has been included for the return of your completed questionnaire. Please return the questionnaire by December 2. Thank you for taking the time to complete this questionnaire and helping express the opinions of students regarding this important topic.

Sincerely,

Sherry Sanmons
Graduate Student
Department of Agricultural Education and Studies

Robert A. Martin
Professor
Department of Agricultural Education and Studies

Detroy Green
Associate Dean
Academic Programs
College of Agriculture
INTERNATIONALIZATION OF THE CURRICULUM IN THE COLLEGE OF AGRICULTURE

Iowa State University
Department of Agricultural Education and Studies
INTERNATIONALIZATION OF THE CURRICULUM IN THE COLLEGE OF AGRICULTURE

Throughout this questionnaire, the concept of incorporating internationally related content, materials, activities, and understandings into the teaching functions of the department or college curriculum will be referred to as internationalization.

PART I. PERCEPTIONS REGARDING INTERNATIONALIZATION OF THE CURRICULUM IN AGRICULTURE

Instructions: Please read the following statements and indicate how much you agree or disagree with each statement by circling the appropriate option. Use the following rating scale:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Please circle your response

1. Today's college graduate in agriculture needs an understanding of agricultural systems around the world.

2. The curriculum of the College of Agriculture should reflect a knowledge of the global community.

3. Iowa State University students should develop a greater awareness of international issues in agriculture.

4. Professors in the College of Agriculture should infuse global awareness into the courses they teach.

5. The College of Agriculture should have a foreign language requirement.

6. The College of Agriculture should encourage all students to participate in a study abroad program.

7. There is no need for the College of Agriculture to pursue internationalizing its curriculum because students will gain a global perspective elsewhere.

please turn the page
Please circle your response

8. The College of Agriculture should have a global awareness course requirement.

9. Professors should give examples from other countries' agricultural systems when teaching about U.S. systems.

10. The College of Agriculture should offer more international experiences for students.

11. Understanding international issues helps a graduate of the College of Agriculture get a job.

12. The College of Agriculture should encourage students to participate in international internship programs (work abroad).

PART II. STUDENT INVOLVEMENT IN INTERNATIONAL ACTIVITIES

Instructions: Please circle the letter next to the response which best describes you or fill in the spaces with appropriate responses.

A. Experiences Abroad

1. Have you ever spent time in a country other than the United States (or your home country)?
   a. Yes - Go to question #2
   b. No - Go to question #3

2. List each country you have lived in or visited, indicate the length of your stay and how your time was spent (for example, vacation, visiting family or friends, exchange, study, work, etc.)

<table>
<thead>
<tr>
<th>Country</th>
<th>Length of Stay</th>
<th>How time spent</th>
</tr>
</thead>
<tbody>
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</table>

   please turn the page
B. Foreign Languages

3. What is your native language?
   a. English
   b. Other (please specify) ______________________

4. Which, if any, languages have you studied (other than English or your native language) and how long have you studied the language(s)?

   (Circle all that apply and indicate length of time studied)

   How long?
   a. Spanish
   b. French
   c. German
   d. Russian
   e. Other ____________________
      (please specify)
   f. I have never studied a foreign language. (Go to question #6)

5. Of the foreign languages that you have studied, what is the level of your fluency in your most proficient language (the language you know best)?

   a. Limited -- able to get around while traveling, using a dictionary; can recite dates, colors, days of the week, etc.
   b. Moderate -- able to conduct normal conversations, read simple articles
   c. Fluent -- able to understand natives speaking quickly and speak with no distinguishable accent

C. Local involvement in international activities

Example #1: Attending an international food festival on campus.
Example #2: Attending a church-sponsored panel discussion featuring members of different religious groups from around the world.

6. Have you ever attended or participated in a local (at ISU, Ames, or your community) activity or activities which you would characterize as international?
   a. Yes - Go to question #7
   b. No - Go to question #9

please turn the page
7. Where did the activity or activities take place?
   a. University campus
   b. Church
   c. Other organization (please specify) ____________________
   d. Other (please specify) ____________________

8. Briefly describe the international activity or activities that you have participated in:

   ______________________________________________________
   ______________________________________________________

D. Internationalization of Courses

9. In your courses within the College of Agriculture, how are instructors infusing a global perspective into the curriculum? (Circle all that apply)

   a. Through discussion of student experiences
   b. Through discussion of instructors' experiences
   c. Through the use of course trips
   d. Through the use of case studies
   e. Through films, slides, videos, etc.
   f. By comparing and contrasting systems
   g. Through the use of guest speakers
   h. Through assigned readings
   i. Other (please specify) ____________________

10. Using the scale below, please rate the amount of international content in all of the courses you have taken in the following areas:

    ______________________________________________________
    ______________________________________________________

    LOW       =  ALMOST NO INTERNATIONAL CONTENT
    MEDIUM    =  SOME INTERNATIONAL CONTENT
    HIGH      =  A GREAT DEAL OF INTERNATIONAL CONTENT
    NA        =  NOT APPLICABLE, I HAVE NOT TAKEN A COURSE IN THIS AREA
(Circle the appropriate response)

<table>
<thead>
<tr>
<th>Option</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>NA</th>
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<tbody>
<tr>
<td>a. Biochemistry &amp; Biophysics</td>
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<tr>
<td>b. Economics (Agriculture)</td>
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<tr>
<td>c. Agricultural Education &amp; Studies</td>
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<tr>
<td>d. Agricultural Systems Technology</td>
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<tr>
<td>e. Agronomy</td>
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<td>f. Animal Ecology</td>
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<td>g. Agricultural Engineering</td>
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<tr>
<td>h. Animal Science</td>
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<tr>
<td>i. Entomology</td>
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<tr>
<td>j. Food Science &amp; Human Nutrition</td>
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<tr>
<td>k. Forestry</td>
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<td>l. Genetics</td>
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<tr>
<td>m. Horticulture</td>
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<tr>
<td>n. Microbiology, Immunology, &amp; Preventative Medicine</td>
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<tr>
<td>o. Pest Management</td>
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<tr>
<td>p. Plant Health and Protection</td>
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<tr>
<td>q. Sociology</td>
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<tr>
<td>r. Zoology</td>
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<tr>
<td>s. Other (please specify)</td>
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</table>

PART III. BARRIERS TO PARTICIPATION IN INTERNATIONAL ACTIVITIES

Instructions: Please circle the letter next to the response which best describes you or fill in the spaces with appropriate responses.

What prevents you as a student from participating in the following activities? (Circle all that apply)

1. Study Abroad Program
   a. financial resources
   b. interruption in academic program
   c. lack of language skills
   d. family responsibilities
   e. lack of interest
   f. not aware of opportunities
   g. other (please specify) ________________________
   h. not applicable - I have participated in such an activity
2. Travel Courses (College of Agriculture short-term trips)
   a. financial resources
   b. interruption in academic program
   c. lack of language skills
   d. family responsibilities
   e. lack of interest
   f. not aware of opportunities
   g. other (please specify) __________________
   h. not applicable - I have participated in such an activity

3. On-Campus International Activities
   a. lack of interest
   b. not aware of opportunities
   c. other (please specify) __________________
   d. not applicable - I have participated in such an activity

4. International Internship Programs (Work Abroad)
   a. interruption in academic program
   b. lack of language skills
   c. family responsibilities
   d. lack of interest
   e. not aware of opportunities
   f. other (please specify) __________________
   g. not applicable - I have participated in such an activity

PART IV. DEMOGRAPHIC INFORMATION

Instructions: Please circle the letter next to the response which best describes you or fill in the spaces with appropriate responses.

1. Your gender is:
   a. Male
   b. Female

2. What is your age (in years)? ______

3. What is your present classification?
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior

please turn the page
4. Are you a:
   a. Full-time student
   b. Part-time student

5. What is your primary major? ____________________________

6. What is your secondary major, if any? ____________________________

7. What is your minor, if any? ____________________________

8. How would you describe the place where you were raised?
   a. farm
   b. rural, not farm
   c. town or city

9. What is the population of the town or city you consider your hometown?
   a. less than 500
   b. 500-999
   c. 1000-2499
   d. 2500-9999
   e. 10,000-49,999
   f. 50,000 and above

10. In which state is your hometown located? ________________

11. Are you a...
    a. U.S. citizen
    b. U.S. permanent resident
    c. Other ____________________________

12. Please write any other comments or suggestions you have concerning the internationalization of the curriculum in the College of Agriculture.

Please return your completed questionnaire in the addressed envelope. Thank you!! 😊
APPENDIX C. REMINDER POSTCARD
Dear Student:

Recently you were mailed a questionnaire concerning your perceptions of the internationalization of the curriculum in the College of Agriculture. Unfortunately, we have not yet received your reply.

We realize this is a busy time for you as you are preparing for final exams. However, the survey will take only 15 minutes to complete. Think of it as a study break! If you choose not to take part in this study, please return the blank questionnaire in the envelope provided. If you would like to help express the opinions of students on this important matter, please return you completed questionnaire as soon as possible.

Thank you for your participation in this project.

Sincerely,

Sherry Sammons
Graduate Student
Department of Agricultural Education and Studies
APPENDIX D. STUDENTS' WRITTEN COMMENTS
The following are student responses to question D12: "Please write any other comments or suggestions you have concerning the internationalization of the curriculum in the College of Agriculture." The responses were entered as written; no corrections in spelling or grammar were made.

No teachers infuse it currently. I had more international education in high school. It is not existent. Teachers here are researchers and only convey their research. They need to become teachers and learn how to teach a broad range of education, not just what they are interested in.

I believe firmly that there should not be a foreign language.

I feel like the college should make students aware of International programs, but they should not be required.

As a BB student, most of these questions are irrelevant.

I feel having international ag courses would be more beneficial than the multiawareness classes that we are taking now.

Foreign language requirement would be a good idea so that if I were in a management position I could work with those who don't speak English.

There is already to damn many foreigners in the USA. I will not travel to their country and bring myself to their level.

This is a great idea and the program is potentially fantastic but the International education (foreign language) should not be pushed - some people aren't interested and won't need it they shouldn't be expected to waste time on one sure course which probably won't be used. Our English requirements are enough w/out trying to get a 2ndary language some of us can't even get our own correct! Check my spelling if you don't agree!

I think it is important to have international class, but I don't think that they should be required.

I believe the should be international courses offered for those interested, but not required. International education doesn't apply or interest everyone.

I definitely believe there should be more international opportunities for students in the college of Ag. My international experience was incredible and has made me a much better person.
I believe everyone should become more aware of international activities. Awareness will help everyone! An International experience would help anyone!

I believe the multicultural awareness credits required are sufficient for person's such as myself. IF others feel the need for additional classes, they can take those at their discretion.

I think that studying abroad would be a very beneficial experience. The differing views would be interesting.

I feel that instructors should try to incorporate these ideas if they apply. Agriculture is everywhere and by comparing other countries it would give the student (me) a better understanding of our systems.

I do not want a foreign language requirement. IF people want to take a foreign language fine but I think it is wrong to force people to take the course when they don't want to. People will not learn if they don't want to.

No foreign language requirement - kids are here to farm, not be "diverse". We have to take enough" multi-cultural bull---- classes they way it is. I was bitter when had to take women's studies instead of Ag course that would increase my abilities, knowledge in my career field. While it is true that we need to understand others, the university should remember what it's primary mission is - Education not cultural diversification.

I hope the college of Ag continues to improve itself in equalizing classroom gender conflicts - I'm pleased the humanities credits have increased but the addition of "one" female professor in the Animal Ecology dept (I'm not sure if her husband was part of the hiring process as it is a common practice) is not back patting material. The need for perspectives from women is greatly lacking as I recently returned from a field trip myself. However, my information is invaluable, it nevertheless lacks any input from women in the area of study I observed and experienced. Internationalization is a good idea - but lets work to resolve and improve conditions of diversity right here @ ISU first.

It's fine they way it is!

If internationalization is implemented I hope that it is optional if it will include more classes. If existing classes cover this area that would be sufficient.

As a sophomore I became interested in the International Agriculture program. However, I don't have it as a secondary major. I have found classes in this area to be extremely beneficial. (political science) As a senior I encourage younger students to get involved in this program.
I think this is a great survey that is needed here. I hope it is beneficial!

Should lead to increased U.S. competitiveness.

I am currently planning to Intern in Japan this summer.

Have International guests speak on topics in class.

Required diversity programs should not be allowed at a University.

It is difficult to gauge this curriculum because An Ecol is not really a part of College of Ag.

I think that the Animal Sciences lack any type of structure and should be reconstructed with Internationalization the primary concern.

I think it's a good idea to add more internationalization as long as extra required classes are not included.

I think that in order for Agriculture in the U.S.A. to continue its success it must become Internationally aware of what is going on.

I think internationalization of the curriculum at ISU is a great idea. More opportunities for international studies would be great.

I haven't encountered much international information in my course involving my major - I would really like to see this incorporated into my classes!

I think students need to know about the importance of international markets. It won't necessarily help get jobs, but it will help once on the job.

I participated in the Ag Travel course '93-'94 and it was a great experience. I would strongly recommend it to anyone interested.

I am not sure, but I think 2 years of a foreign language is required for entrance to ISU.

I do not feel that a foreign language is a fair option. I am already required to take far too much bull---- as it is. However, integration into already present classes would be welcomed.

Do not make a required course, there are already too many "worthless" class requirements that detract from "our" educational goals.
I think Internationalization can be somewhat beneficial and some students may be interested but I do not think more foreign culture or language courses should be required. Some people get no benefit from them but are required to take them anyway.

It seems like College of Ag should update its major/course requirements to meet LAS college. It would also be a very beneficial and encouraging factor for students to receive CREDIT for their experiences as I received none from the college of Ag. for my internship in Genetics - my major!

There are more important topics than internationalization and multiculturalism. If students want these, allow them to take them. Do not make them requirements!!!

I think this is a great idea - especially a foreign language requirement. I learned a lot from my foreign language experiences!

Don't force internationalization on students who don't want it or need it.

I feel there needs to be more information about studying abroad and international exchanges etc. Also I think more information should be supplied about foreign markets, methods of raising animals, etc.

Internationalization should be present but not mandated that students take required classes for this, enough is taught into current classes.

A class that would be applicable to all majors within the College of Agriculture would be ideal. A class that would be an intro. to international studies could be beneficial.

I don't necessarily think a internationalization course should be a requirement because not everyone is going to have deal directly with it.

I don't want to see all the International TA's that nobody can understand poping up in the Ag college as in the other colleges.

More money available - I couldn't go to Australia this winter because of it! Making some classes a requirement will interfere with the other classes of your major and you will attend college even longer. I suggest intergrating it into the already required classes. Oversea or out of state classes/internship should not be required.

It's OK, but I think people shouldn't be forced to do it.

Awareness of international agriculture is very important to me, but I am unable to take the courses available because of other course requirements. Night seminars would be responded to better I think.
Sounds like a great idea! Seed banks would be interesting to study more in depth. This university needs all the multiculturism it can get!

International education should take place in elementary school, college should be more focused towards the student's chosen career. Forcing students to take more international classes won't help their attitudes if they aren't already interested. As an Animal Science student planning on opening an animal (pet) related business in Iowa, I'd get more out of AnSci and business courses than a course explaining the Agricultural practices of other countries.

Internationalization of the curriculum is a good idea but it should not be a requirement in An S. Maybe incorporate into another class.

Agriculture in developing countries should be focused.

I think it's important to emphasize the international aspect of the agriculture studies because most people aren't aware of just how many opportunities exist for work overseas in developing countries for people with an agricultural background.

International electives should be available but not mandatory.

Using teaching assistants (TA's) that can not speak fluent English is a poor method of "infusing a global perspective" into a curriculum. Ideas need to be communicated clearly before they can be understood.

It wouldn't be fair to all students to require a foreign language be taken. It would not be useful to the majority of Ag Students.

I feel if internationalization is to be incorporated, it should be through a separate class or classes. I also feel it shouldn't be an intensive requirement. Like no more than 6 credits to meet the requirement.

Please no foreign language requirement!!

If I could afford to study abroad, I would...

It would be beneficial to the students if instructors could provide guidance for applying the curriculum material to understand the globe.

Have advisors give info on international opportunities.

I'd love to know about the opportunities I have in studying/working abroad. Good advertisement is needed.
I believe a course which would fulfill the multi-cultural awareness requirement that dealt with Agriculture would be more beneficial than just Anthro. 201 - which most students seem to take.

I myself would be interested in learning more about the work abroad programs and also more about some foriegn country aspects of the cattle industry & the Agriculture industries.

I think internationalization is very worthwhile, the world is growing smaller through technology which means more opportunities for Ag students.

If someone wants more international classes, they are free to take them as electives. I don't think someone should have to take classes dealing with a subject they have no interest in.

ISU seems not to be interested in having network w/ Asian countries (especially developing countries). PLEASE offer some programs which help student to get involved in agriculture in Asian developing countries. I think ISU tend to go only corn, soybean, hay, dairy science direction. Be aware to consider Asian style agriculture which is concentrating on rice, but feeds for livestock. To feed dramatically increasing world population in the future, ISU, which is one of the well-known agri. college, should open mind to help Asian countries' agricultural technology. Please, open the courses which is related to the topic above.

Would it be possible for intenational ag classes to replace the multicultural awareness requirements.

This should not be a required course. Being a student at ISU is being diverse enough.

Internationalization should be a choice of the students, not a requirement because not everyone is interested in this.

Leave the curricula the same as it is now.

Everyone at ISU should have to be more globally aware of things, whether its agriculture or economics, trade, and especially problems or overpopulation and environmental damage in a global scale.

I have only been here since August and therefore have limited exposure to classes but I have noticed attempts to at least explain practices in other countries.

I feel a global awareness is important as we move toward more increased free trade in the future which would mean more interaction with different countries and cultures.
Do not have an International requirement for graduation!

More trips should be available, along w/ ways to raise the $. Required classes are good at present. Classes should integrate other cultures into study.

I would much rather see international activities infused into existing courses or adding optional courses, rather than adding an international requirement.

I think study or work abroad is an excellent opportunity- someday I hoped to do this - but I must find an area of study that's completely interesting to me.

I think students should be aware of international agriculture but not be forced to take extra classes they should incorporate the international aspect into classes we already have.

Frequent inclusion of international examples (to compare & contrast or to stand alone to illustrate a point) would make coursework more interesting and would provide a more complete picture. Biology type courses that survey some aspect of taxonomy frequently refer to international animals (e.g. -in Mammalogy, we study world orders and some world families, Iowa genera & species). This could be developed even more though.

The College of Agriculture should not internationalize its curriculum. The United States already has the best Agriculture system in the world and I believe students would benefit more by concentrating on it more heavily.

If such a internationalization course were to be offered or required by the College of Agriculture it should be worth some credit hour(s) toward graduation requirement.

Very important - needs to be done.

The College may implement some international perspectives, but NO required courses. We already have these requirements in different areas.

I am concerned about adding more requirements - it's hard enough to finish in 4 years as it is!

I do believe it is important to learn about & help others countries, but there is a lot about this country (U.S.) that I have yet to learn about. I think we have problems in our own country that need to be addressed.

I looked into the study abroad program, but when it all added up the money I would make would hardly pay for the plane trip over.
I think some information on other nations should be presented. I think it is more important to have a foreign language requirement & global awareness requirement.

Please. Please Don't make a foreign language requirement! Ag teachers have enough problem getting kids into ag because guidance counselors tell kids they have to have a foreign language so the kids don't put ag in their schedule in favor of Spanish. I like suggesting that students travel to other countries, but do not require the foreign language for all students.

I believe the College of Ag needs to have more international programs/courses especially with so many international trade agreements and international business. I don't feel that a language requirement is necessary, however.

More info incorporated into some of the programs/classes would help make more people aware and maybe more interested in some of the programs/opportunities.

Though a good idea, you can't force people to take a course that shouldn't be shoved upon them. There are still a lot of naive and stubborn people who think this is not worthy to pursue.

I think global awareness course is required for the students. As I have talked to many Ag students I found that they know very little about the world outside of the U.S. Thus, a global awareness course will give them a chance to get to know the outside world.

I don't feel that this survey related to me personally because I don't plan to go into agricultural genetics.

If it pertains to your field of study, yes you should know what is happening across the globe, but if not you shouldn't be forced to take unnecessary courses just for the sake of diversity.

There are courses in Agronomy (317, 318) Plant Pathology (407) in which, professor should orient toward different agricultural problems in the rest of the world and not only in the U.S.A.

Perhaps send a mail/letter or listing of activities/experiences available to all Ag related students.

I feel all students should have a global awareness in all areas of discipline!

I think it would be great for student to have teacher giving examples from other countries and showed the importance of global awareness. OK maybe a class that informing stuff about international? I mean, like the opportunities, advantages, etc...
With as long as it takes to get through college and as costly as it is; I think that students shouldn't have to spend time taking more multi-cultural classes, unless they want to. I do think it is important to be culturally aware, but I don't think more emphasis should be put on it. Also, with the shape the American farmers are in today, maybe our minds should be focused to help American farmers. I realize other countries are in worse shape than us, but I still feel the American farmer needs help so we can feed America and possibly the world.

I think that we need to be more informed on international ag programs.

I feel it is of vital importance in our futures and in the future of agriculture as communications and technology are being more easily shared throughout the world.

I think it could maybe be touched on a bit more w/in a course, but I don't feel it needs to be highly stressed.

I feel students can get enough knowledge of international aspects through instructor experiences and comparison of agricultural systems.

More information needs to be given out of work overseas, study overseas, and financial help available (especially financial help).

I believe that this internationalization needs to be introduced in 100 level classes to make students aware of these programs and some type of incentive to get students involved, example: get full credit for participating but no grades to emphasize the student.

We don't need to take special courses to fulfill internationalization. It needs to be taught through other ways like living with people of other countries in dorms.

If it means adding more required classes that are only taught certain semesters and maybe difficult to get into -- Don't do it.

Adding courses to the curriculum dealing with internationalization of agronomy would be a very poor decision! It is hard enough to get out of here in 4 or 4 1/2 years!

I fear new, required courses may be created. The amount of required courses is overwhelming already. I'd not wish for students to lose the power of electives courses. Required courses extend graduation dates unintentionally.

Don't make too many courses required or else drop some current requirements so we can still try to graduate in four years.

More people especially in Ag Bus. need to be encouraged to take Agron 415 world crops.
I feel that the internationalization of the curriculum is a great opportunity to open the eyes of many students who don't yet understand that there are lands beyond the good ol' USA.

Time is a big thing for students. There is only so much one can do. Students need to become more aware of the benefits and activities in the College of Agriculture.

Don't do it. We don't need it and most don't care about it.

I think the encouragement of international classes would be better than adding an extra 3 credits requirement!

Most of the stuffs I learned here were based on U.S.A. Agricultural. That's not applicable in my country. So I hope I can learn some foreign Agriculture system and can apply in my future career.

The Professors in Animal Science are by far the best when it comes to considering the processes of other countries when compared to ours.

I feel that I should not have to take any kind of diversity classes to graduate. I would rather go on a study abroad program to learn about internationalization.

I feel that if a student could get financial help for trips overseas more would do it. Money is always a problem.

Internationalization of existing required classes should not be done adding classes that deal with international affairs in agriculture is a good idea. This way people interested in international agriculture would not be forced to learn about it.

If such a course like global awareness is needed or required for Ag students, then make it specifically relate to the other countries Ag systems.

International courses would be a good elective but I don't think it should be required. Not yet anyway.

While it is important to include internationalization in a college program, I do not think it should be forced onto students as forcing could backfire. However current courses are inadequate.

I think international opportunities should be offered & encouraged, but they shouldn't be forced onto students.
Because I had problems transferring my courses to ISU, my motivation to study here is poor. Since I guess that nobody care if I do or do not study here. That is the reason sometimes I don't care about the int. programs and opportunities in it.

Please keep me inform of all the international activities. Make me know about studying and working opportunities abroad.

I feel that internationalization should be an option, and some brief overviews in classes and how that subject relates overseas, but not required.

Don't force it on students.

My experience with the Ag Travel Course to Australia & New Zealand last X-Mas break was a real eye-opener and made me realize the opportunities in Ag.

It's almost impossible to force somebody to understand a foreign culture so make sure that courses that are taught are informative and interesting.

I have been looking for a Latin (language) class for years. I have yet to find one. As a pre-vet I'm very interested in Latin as most medical terms come from this language. I think it would be WONDERFUL if a Latin class was offered & maybe even required for pre-vets.

I have had a hard time seeing how internationalization can be applied to Animal Ecology, other than the Global Environmental quality. Also, I have just this semester enrolled in Animal Ecology.

I don't feel we need any more required courses because we already have more than enough. If a student wants to learn about other countrys, they can take courses that they want to, when they want to. Because students who don't want to and are forced to won't get anything out of the course.

I think there are a select few people that are interested enough to pursue international interest. Offer opportunities to the class, but don't require them. Making people aware doesn't make them interested.

I would not care to learn this. I would rather concentrate on topics & issues here.

This University is already shoving internationalism down our throats. The College of Ag does not need to do it also.

I already have to complete 128 credit hours, how much more do you want me to do?
I don't feel Iowa students should be forced to take a foreign language if they aren't interested in the language.

I think international involvement in Agriculture will be important in the future because of Gatt and Nafta, however none of the present courses offered here would have any practical significance in international aspects!

Internationalization of the curriculum should not be forced on students in the form of required classes. Those students wishing to participate in more global enterprises after graduation, however, should be encouraged to take such classes or seminars.

I grew up in a small town right next to Omaha, NE. So I wanted to clarify that I do not have what might be considered a small town mentality.

Financial resources are your biggest problem.

Most classes in my major have discussed the global perspective; there should not be another requirement added to a full curriculum; perhaps a course or two.

Sometime, other people just makes you feel so unwanted that you don't care or want to go anymore. (nor try to go)

Good idea. I just wish more emphasis could be occurring during my stay here at I.S.U.

I think this is an important subject, however, I would rather see mandatory environmental education classes & teaching (concentrate locally - USA - think globally) - internationalization would come after that.

As a example in my Animal Science courses they teach the class more as how to raise or work with animal in Iowa but, they should teach how to do it in other countries because we or other country does not have the same resource on breeds of animals that Iowa has.

Great if you can do it without forcing it on people who don't want it and without another required course to take.

I hope that the internationalization of the curriculum can lessen the hostile atmosphere that I more than often feel in (at least) the agronomy department.

It really should be addressed more in all curricula - after all, the employers are looking for individuals w/ such experience, we need this background etc to be more "marketable" graduates.
I think internationalization is not necessary and would be a waste of my time, for instance, to take a foreign language. I believe the opportunities provided, i.e. Study Abroad, On Campus Activities, should be continued, but only for those interested in the program. Forcing culture on someone will NOT work.

Adding international classes or foreign language requirements would be good, but not at the expense of the student having to take longer to complete a degree or the dropping of other courses in the curriculum.

You could possibly send out a newsletter telling of opportunities.

I feel it is alright to bring up international ideas in present required classes. But time needs to be spent covering other topics. The prof. should not make a special point if it does not coincide with the lecture class.

I think International learning will benefit student when they get out into the "Real World".

International Agriculture major would be sufficient without having internationalization of the curriculum. There surely are universities containing agriculture curriculum in other countries.

-no more requirements (ex. 6 cr. diversity classes).

I would be interested in a travel course.

I really would have liked to have been informed about work opportunities and study abroad programs when I came to ISU so I could have taken advantage of them. As a transfer student I was not made aware of them until I heard a presentation of a program in Alpha Zeta as a senior.

When I think of international - I'm always thinking of third world countries - places that don't interest me. I would be interested in Japan, China or Europe if it is offered in the Ag college. This may be an option, but I am not aware of it. I would like to see an opportunity for agri-business (internationally) for those not as interested in animal production. Also, if an international class requirement is offered - what is going to be dropped? Students shouldn't be given the burden of more class requirements.

Internationalization need not be achieved through extra coursework. By making existing classes more internationally relevant, goals for internationalization can be achieved.

I do not believe that we should require a foreign language and international courses. Integrating cross-cultural topics into current courses will be sufficient.
You should let anyone go if they have the desire to!

I feel the curriculum should be offered but not required.

I think adding requirements takes away from a student's electives (uniqueness & interests). A student has enough problems (usually) financially and spending time on academics that we don't need any more graduation restrictions. I think my program is too inefficient and overlapping. It is getting restructured, but I'll be surprised if it helps much.

Students will be able to learn different to resolve several problems in agriculture, to reduce input, save more money and protect their environment.

I have only been in the College of Ag. for little over a year so my exposure to most professors is limited. My greatest exposure to international topics was when I took a class specifically dealing w/ international relations.

I think it is a good idea, but with the little time in the classroom it probably isn't feasible there to a large extent. Mailings to students about study abroad and internships would help quite a bit, I think.

I feel that college prepares you to analyze the future and make decisions. If the student feels that he/she would be helped by an international course let them take it. Do not require them to take it. It is our own responsibility to prepare ourselves for the future. If I want to take an INTERESTING international course I will !! Don't require me to take a course that I don't want to take because the only person that wins is the University by taking my money! If it is an open option it will be better recieved.

I have very little interest in International Studies. I don't plan on working outside the U.S. Here is where I'd like to emphasize; Spanish is the only language I can find beneficial due to the large amount of migrant help in my home area.

I think it would definitely be a positive thing for classes to start using more international programs.

I think an international course would be excellent idea, if substituted for another course requirement area.

I believe that it should be left up to the student on whether he or she wants to take internation class. Have the classes offered but leave it up to the students.

If you have any information concerning study or work abroad programs I would like to see it.
I am graduating and definitely think that there needs to be a requirement for global awareness of issues and the need for a foreign language requirement.

Internationalizing the curriculum helps students gain a broader understanding of themselves and others. I feel that it is necessary.

These courses would be a benefit to some of the students, but a lot of the students I know are only going back home to farm. These courses wouldn't benefit them.

I wish more things were posted, about for example: Ag travel courses, and summer Internships abroad, also the costs for these two programs.

I think that a special course should be developed for Ag. majors and to drop the multicultural awareness requirement.

If internationalization is incorporated let the requirements replace existing ones not be in addition to the current program - we have enough to worry about!!

I think that a foreign language should be mandatory with GATT and many other International opportunities opening up, this is a necessity.

I would like to see international aspects incorporated into classroom discussions, where applicable. But I don't think more requirements should be added beyond the current foreign/multicultural requirement. If student wants to take more international courses, International Ag is offered as a secondary major.

I think that it is good to offer students the opportunity if they are interested but they should not be required to participate.

We need to understand markets and perceptions about American Agriculture of consumers in other parts of the world. Many Ag. students will travel to other countries in the future to increase demand for their ag products, they will need to understand the country they are visiting. Learning mannerisms and customs are more important than the language itself.

Do not make it a requirement to take a class, but maybe bring out opportunities a little bit more. My Animal Science classes do a good job of internationalization.

The future, I believe, will require people to at least learn a second language and be knowledgable about foreign agriculture if you want to be successful in your career. (with a big company)

If there are visiting lecturers, be certain that they can speak English well enough to convey the message (as well as T.A.'s & professors)
Don't force enrollment in international courses. Encourage international internships at orientation courses. Encourage professors to include their experiences abroad in their classes.

Foreign language should not be required! If a student plans to work abroad or where another language would be helpful, then he/she should take those languages needed. A good % of Ag students today are farm boys who plan on getting a degree & going home to farm, they have no need for a foreign language! The College Agriculture should provide more opportunities to work abroad & also make the information about those opportunities well known throughout the college of Ag. Students should be encouraged to work abroad but why not encourage students to work elsewhere in America! What's the matter with working in the U.S.!?  

We have students at this college who are from foreign countries, and they are getting their education in a Masters or Ph.D. program. These people get their training here, and then take it home to their foreign country. Why should I as an American citizen be made to feel that I should consider studying abroad?  

I work with many Chinese people in Agronomy Hall; through this job I have learned much about their culture & lives - very interesting for me!  

Internationalization is going to be very important in the near future if it isn't already. We are becoming a much more global.  

Need to make it interesting and a valid part of the class. Not just an "add" in to meet a requirement.  

1. I don't believe students should be pushed to participate in international activities because even w/ help many cannot afford to go. I believe $ is the largest problem for students who do not participate in these activities. I would love to experience the trip to Australia, for example, but cannot afford to go.  
2. Also, I believe special courses based on International issues and/or studies should be put into the curriculum, but I don't feel it should be put in our current courses.  

I think it depends on what a person is going into and is not vital for all students.  

International curriculum should be available for those who wanted to live abroad etc. but it should not be mandatory or required in a major!  

I believe it is important to have an understanding of internationalization, however, it should be worked into current courses rather than be forced upon us in special classes.
I don't think there should be a mandatory internationalization/diversity requirement. It should be optional, or for specific majors for which it is necessary. Otherwise, leave it alone.

Keeping good English speaking professors is important. I don't feel there is a need for anyone who people would have a hard time understanding.

I think it is a very good idea & important for student to "globalize" the field of agriculture. As a matter of fact, this is the picture of today's agriculture. Somehow, this questionnaire is more info agri. than info food source, which I think they are both equally important.

The only concern is that the global awareness program (if started) would turn into a Ag course on how to exploit the world.

I feel it should be incorporated into existing programs but I don't feel separate classes are needed to help students become internationally aware.

Agriculture in the U.S. is highly sophisticated compared to surrounding countries. Yet the more we learn about the countries around us and teach them about our agriculture, they begin to produce more and in turn will effect the markets we depend on.

I think that Instructors could integrate a world view of agriculture in nearly all courses. It may not be of great interest to everyone, but may prove to be highly useful at sometime down the road.

Be careful of taking away from the strong curriculum of the Ag program to implement a global awareness course or foreign lang. requirement. I transferred to Iowa State because my previous college was too generalized in its curriculum.

Don't make foreign language a requirement for the College of Ag. It is unnecessary since we never use it!

There are many classes, such as physiology (Zool. 355) that virtually impossible to internationalize. However, putting some, but not an extensive amt. of international information in classes (like Pest Mngmt, Plant Health & protection, MIPM, Forestry, Horticulture, would be a good idea.

I believe we need to address the ag. problems here at home in the U.S. such as, soil erosion, air and water pollution, before we try to solve world ag. problems! When you globalize anything it will never be resolved!
I feel that internationalization of the Ag curriculum is not for everyone. It should be a choice not a requirement!

I think it would be ridiculous to require all students in College of Ag to be required to take a foreign language. Those students who are here for the technical skills to succeed in farming (Ag Studies) should not be subjected to a required foreign language. Also I think some students who don't know what they want to do choose College of Ag because we don't have a for. lan. requirement.

I can understand foreign language requirement for some but not all majors in C. of Ag. Students are not informed of trips until after the fact. In the 2 1/2 years here, not one teacher has told of a trip and asked if anyone's interested. I have not seen signs either. More needs to be done in most classrooms of comparing & contrasting methods (etc). That's what we need most.

I feel internationalization should only be expanded in current classes. Further classes will simply increase the work load, and I don't feel everyone would benefit from a separate class.

Encourage internationalization by financial or any other means, but don't require anything. It turns people away.

I think there is a certain percentage of students who are not globally aware. You might even call some racist, but forcing 6 credits of global awareness classes on all students will not help the situation! Get these students out of their close minded fraternities and sororities and into the cultural soup! How you should do this, I dunno.

I feel students need to be more informed in the international curriculum.

I don't feel it would be necessary to have internationalization. I feel it would be boring to me. Spanish classes in high school were not very interesting.

Personally, - I've heard of very few opportunities to get involved in any relevant activity.

I would definitely participate in some of the shorter abroad programs if the cost were much, much less. Currently, they are > $2500.

Internationalization may help a handful of students but I see no reason to require us to take these kind of courses. It's already hard enough to get out of college in 4 years because of some "unnecessary" courses that are already required! For those students who wish to learn about internationalism there are plenty of international programs going on & plenty of international students to learn from. All they have to do is seek them out.
I feel that the curriculum here is extensive and I also feel that an internationalization course would be redundant, we get enough in our regular courses.

The main benefit in growth of internationalization, in my mind, is that ideas of better production, new ideas in agriculture in general, will be sparked from seeing what is going on around the globe.

I feel incorporating int'lization into classes is good to make people aware of what is happening, but I don't feel it should be made a required credit (class), especially after being here 4 1/2 years and fulfilling all other requirements. I think the load is heavy enough.

I think that the foreign language requirement is a good idea - not necessarily for the entire college though, maybe, just in certain majors where it would be utilized.

Everyone talks about Internationalization of the College of Agriculture yet the International Ag Club can't even get an advisor.

How will this affect our curriculum. Is adding ANOTHER "requirement" going to be beneficial enough?

I think in some courses there should be a lot more global awareness, it would be hard, I think, to incorporate global awareness into "hard science" type courses.