SELECTED STUDENTS' PERCEPTIONS OF INTERNATIONAL STUDENTS AND KNOWLEDGE OF INTERNATIONAL AGRICULTURE

By

TROY ALEN PIERCE

Bachelor of Science

University of Central Florida

Orlando, Florida

1992

Submitted to the Faculty of the Graduate College of the Oklahoma State University in partial fulfillment of the requirements for the Degree of MASTER OF SCIENCE July, 1995

SELECTED STUDENTS' PERCEPTIONS OF INTERNATIONAL STUDENTS AND KNOWLEDGE OF INTERNATIONAL AGRICULTURE

Thesis Approved:

Thesis Advisor

ACKNOWLEDGMENTS

I would like to thank the people who have helped me during this whirlwind one year and two months since I entered the Agricultural Education Program at Oklahoma State University:

Dr. James P. Key, who instilled my initial excitement in the Program and took on the task of setting me in the right direction;

Dr. James White, who took considerable time out of his busy schedule to talk one on one with me about the various ideas that were floating around in my head;

Dr. Bill Weeks, my major advisor, who grabbed the reins in the middle part of this journey and gave me the needed pushes and ideas to make this study happen;

Dr. Niels Maness, Donna, Supreetha, Jay, Steve, Becky, Kate, Claire, Brian and everyone else who passed through the horticulture lab that had a sense of humor;

Miste Curtis, who heard my voice more times than anyone should have to hear it;

Mom, Dad, Grandma, and Grandpa for, at the very least, my genes;

And, as always, there is Anna Fallon. For her I dedicate a certain Marc Cohn song that she has known since the beginning.

Now, to quote Stan "The Man" Lee, "Nuff Said!"

TABLE OF CONTENTS

Chapter		Page
I. IN	NTRODUCTION	1
	Statement of the Problem	2
	Purpose of the Study	
	Objectives of the Study	
	Scope of the Study	
	Definition of Terms	3
	Assumptions	4
	Limitations	
II. R	EVIEW OF LITERATURE	5
	Introduction	5
	Students' Perceptions of Foreign Countries and People	6
	Modern Extension Problems in the Developing World	10
	Summary	17
III. DE	ESIGN AND METHODOLOGY	19
	Introduction	19
	Institutional Review Board	19
	Population	
	Instrumentation and Situation	20
	Collection of Data	21
	Data Analysis	21
IV. P	RESENTATION AND ANALYSIS OF DATA	23
v. s	UMMARY, CONCLUSIONS, AND RECOMMENDATIONS	47
	Introduction	47
	Purpose of the Study.	47
	Objectives of the Study.	
	Major Findings	
	Conclusions	50

Chapte	r	Page
	Recommendations	51
	Recommendations for Additional Research	52
SELEC	CTED BIBLIOGRAPHY	53
APPE	NDIXES	
	APPENDIX A QUESTIONNAIRE	55

LIST OF TABLES

Table	Page
I.	Class and Gender of the Study Population
П.	Distribution of Respondents Based on Class Level
III.	Distribution of Respondents Based on Gender
IV.	Distribution of Respondents Based on Age Group
V.	Distribution of Respondents Based on Major
VI.	Distribution of Respondents Based on Community Size Where Raised
VII.	Distribution of Respondents Based on Agricultural Background
VIII.	Distribution of Respondents Based on Whether or Not They Had Traveled Outside of the United States
IX.	Distribution of Respondents Based on General World Agriculture Knowledge
X.	Distribution of Respondents Based on Knowledge and Perceptions of International Students and International Issues 33
XI.	Chi-Square Analysis of General World Agricultural Knowledge Versus Respondents Year in School, Gender, and Travel Outside of the United States
XII.	Distribution of Respondents Based on Questionnaire Section: Bi-Polar Scale
XIII.	ANOVA Results of Testing if Year in College Makes a Difference in Responses to Bi-Polar Scale

Table	Page
XIV.	T-Test Results of Comparing if Gender Determines a Difference in Responses to Bi-Polar Scale
XV.	ANOVA Results of Testing if the Size of the Community in Which Respondents Were Raised Shows a Difference in Responses to Bi-Polar Scale
XVI.	T-Test Results of Determining if Respondent Travel Outside the US Makes a Difference in Responses to Bi-Polar Scale
XVII.	T-Test Results of Determining if Respondents Who Had Been to an International Student's Residence Showed a Difference
XVIII.	in Responses to Bi-Polar Scale
XIX.	Summary of Major Findings Based on Knowledge and Perceptions of International Agriculture and International Students

CHAPTER I

Introduction

As Oklahoma State University (OSU) continues to create an environment of cultural and racial diversity, there are sure to be successes as well as obstacles to the achievement of the final product. Students from foreign countries may be seen in many different ways by the U.S. students which make up the decided majority on campus and student affairs administrators may have many challenges creating a sense of "community" among the various student groups (Jones, 1990). The attitudes of local students toward "foreign" students has been a primary concern among international students in the past on Oklahoma college campuses (Akpan-Iquot, 1980). The U.S. students' views may or may not change as they achieve increasing levels of education and increasing levels of contact with students from other nations. Language barriers may be present as well as cultural and religious differences which may make integration difficult for anyone not willing to take the extra steps to overcome these obstacles to understanding. There are many rewarding things to be shared with people from various backgrounds, especially in the determining of how each person is different from another while at the same time each individual having a basic "humanness" that makes everyone related.

This research hopes to shed light on how students attending classes in the College of Agricultural Sciences and Natural Resources at OSU view international students and international agriculture in the hopes of providing information that could be valuable in determining appropriate educational factors that might be added to formal and informal student activities and classes.

Statement of the Problem

It was determined that students may come to college with preconceived notions about international students. No current data was available on what these preconceived notions might be.

Purpose of the Study

The purpose of this study was to determine how selected students attending classes in the College of Agricultural Sciences and Natural Resources at OSU perceive international students and international agriculture.

Objectives of the Study

To accomplish the purpose of the study, the following objectives were established:

- 1. To describe demographic characteristics of selected students enrolled in freshmen agricultural economics and agronomy courses.
 - 2. To determine the selected students' knowledge of international agriculture.
- To describe selected students' perceptions of international issues that effect
 U.S. agriculture.
 - 4. To describe selected students' perceptions of international students.

Scope of the Study

Selected resident students enrolled in freshmen agriculture courses at Oklahoma State University.

Definitions of Terms

The following terms are defined as they pertain to this study and are presented as follows:

<u>College of Agricultural Science and Natural Resources (CASNR) Student</u> - A student who is attending classes in the CASNR

Freshmen Agriculture Courses - Freshmen courses in AGEC 1114 and AGRON 1213.

<u>GATT</u> - General Agreement on Trade and Tariffs; policy that effects agriculture in the U.S.

International Policy - A policy the U.S. is involved in that effects the U.S. as well as other countries.

<u>International Student</u> - A student who has come to the U.S. from a foreign country for the purpose of attending college.

<u>NAFTA</u> - North American Free Trade Agreement; policy that effects agriculture in the U.S.

Assumptions

The following assumptions were made concerning the research study:

- 1) The participants will answer honestly on the questionnaire.
- 2) The questionnaire is a valid instrument.

Limitations

Limitations of the study included:

- 1) Access to students in the sense that instructors were asked if it would be possible to hand out questionnaires in their classes.
- 2) Size of an appropriate questionnaire. Some topics and ideas had to be omitted because of size limitations based on the time requirements of giving a survey during valuable class time.
 - 3) Students in attendance on the day the questionnaire was administered.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The following review of literature presents research on how international students are perceived and how international students perceive aspects of the colleges they were attending. Studies were chosen that seemed most closely related to the primary ideology behind the research that was conducted in this thesis and are of a contemporary nature to insure closer comparability.

The review of literature will also help to shed light on the problems faced by extension workers and extension users in developing countries. Since many developing countries around the world do not have extension services or do not have fully realized extension programs, this review will also try to examine some of the possible reasons why extension is lacking where perhaps it is needed most and could do the most good quickly. Agricultural extension in the developed world has overcome many of the obstacles that plagued farmers in the early part of this century, and through gaining greater information about particular underdeveloped countries problems perhaps the obstacles of farmers in the developing nations can better be handled.

The review of literature is broken into two sections: 1) studies of students' perceptions of foreign countries and people and 2) modern extension problems in the developing world.

Students' Perceptions of Foreign Countries and People

Various peoples in the countries of the world may view the residents of other countries in different and distinct ways as compared to how they feel about themselves and their own countries. Many things can effect the way in which people view other people and other countries and may include differences in culture, religion, race, government, and a various multitude of other possibilities that can make another people or country seem "different".

Haas and Clary (1985) studied United States public school students in the state of Arkansas from the Dover and Dardanelle school systems. The researchers attempted to determine fourth and eighth grade students' perceptions of other nations using the names of various countries tied to a semantic differential format questionnaire based on the Other Nations Other Peoples study. They found that both the fourth and eighth grade students had strong responses in their perceptions; and that the students in both grade levels perceived the countries in the study favorably except for Russia and East Germany. These two countries were described with negative character traits such as "warlike" and "unfriendly". The eighth graders went even further than the fourth graders and chose the additional traits "bad", "untrustworthy", "unhappy", and

"selfish" for the two countries. Interestingly, even if the responses to a particular country were favorable such as "friendly", "good", and "peaceful", the students still chose the trait of "not like us" to describe the country. The results of the study were described by the researchers as showing that the presence early in life of a certain perception of a nation would give a strong chance of that same perception into the eighth grade.

Haas and Inuwa (1992) did a similar study in Kano State in Nigeria to determine how the students there perceive other nations and other people. The study used a format based on the previous Arkansas study of the semantic differential style translated into the native language Hausa. Eighth and twelfth grade students were used in the study and it was found that the older the student the more likely they were to make a significant response. It was also found that the students tended to know more about countries that were more distant from Nigeria than near. There was a tendency among the students to rate every question on the extreme positive end even when the answer was determined to be just the opposite by the researchers; this fact was especially seen on traits such as "democratic", "free", and "many rights" when the students described Saudi Arabia, China, former USSR, Ghana, and Niger. The researchers also determined that the students did not get their information on other countries from the classroom, but from the media (as determined by a question added to the survey). The researchers also suggested that, like the students in Arkansas, perceptions were often determined at a young age and continued to persist even in light of conflicting information that was presented to the students later on either through education or the media.

Globetti et.al. (1993) tested perceptions not only toward international students but toward other "different" and minority status students on the campus of a moderate-size public university of the Deep South. They chose twelve identifiable subgroups on the campus to include in the categories on their questionnaire. The research showed that more than half (51.7%) of the students on campus thought that international students would have a hard time fitting in on campus. The questionnaire also determined that African-American students perceived international students in much the same way as the white students on campus. The researchers also included a section in their questionnaire which was used to determine a "social interaction index" score. This section asked questions about social and personal interaction between the students questioned and minority groups on campus. It was found that students with a higher mean "social interaction index" would agree that the university should actively recruit more international and African-American students.

Information has also been gathered on how members of a community in which international students attend the local university perceive those international students (Tesseneer, 1981). The residents of the Bowling Green community were surveyed on their awareness of the international students at Western Kentucky University. It was found that the local people were generally unaware "about basic demographic data and services available to international students studying at Western Kentucky University".

Johnson and Jenks (1994) took a creative look at how native speakers of English perceived differing accents among non-native speakers of English. They tested respondents based on hearing a non-native speaker who used one grammatical error while speaking and who used one phonetic error while speaking. These error tests were performed using recordings of voices with various accents. A group of Florida college freshmen heard the speech samples and then completed a semantic differential scale for each voice sample. The researchers found that the American students rated speakers of English who had an accent negatively and rated an Arabic accent significantly lower than all other accents (i.e Spanish and German). The researchers postulated that the lower rating of an Arabic accent could have been tied to recent political terrorism events that involved people from the Middle East. It was interesting to note that a recent event involving a few individuals could effect the perceptions American students might have of an entire group of people.

Finally, a study was found by Akpan-Iquot (1980) that asked international students to tell their perceptions of problems they face at Oklahoma universities. It was found that the international students were most bothered specifically by the following:

- 1) attitude of some U.S. students toward "foreign" students;
- 2) attitude of some U.S. people to skin color;
- 3) concept of being a "foreign student";
- 4) immigration work restrictions;
- 5) understanding U.S. slang;
- 6) giving oral reports in class;

- 7) writing or typing term papers;
- 8) homesickness;
- 9) lack of opportunities to meet more U.S. students; and
- 10) lack of money to meet expenses.

The researcher determined that most problems international students felt they had were social in nature. The researcher recommended programs to involve international students socially with American students and families and to make it easier for international students to find part-time work to alleviate financial stress.

Modern Extension Problems In The Developing World

Many of the extension problems in the Third World can be traced to dissatisfaction among the extension workers themselves. Mwangi and McCaslin (1994) found that motivational factors among extension personnel in Kenya's Rift Valley were strongly tied to their perception rating of their supervisors. Out of twelve districts studied, eleven districts' personnel described themselves as "not motivated". The personnel in the one district that described its level of motivation as "motivated" also was the district whose district agricultural officer had received superior ratings as a staff motivator. These results strongly suggested that supervisors have the key role in determining motivation and success of their personnel in developing countries.

Mwangi and McCaslin also found that extension personnel were frustrated because promotion and further training based on merit was being ignored. They

Mwangi and McCaslin also found that extension personnel were frustrated because promotion and further training based on merit was being ignored. They suggested that motivation must be raised to increase job satisfaction among extension workers. Webster's (1976) says motivation is to incite or impel someone to do something. In the case of extension agents, this would be to incite or impel the agents to go out and deliver agricultural information to those people who might need it. So, if agents described themselves as unmotivated, then the people who need the information are not getting it. And, ultimately, extension is not working properly in that area. In this case, the area is a developing country.

Extension agents may be unmotivated in certain areas of the developing world, but in other areas of the world motivation may not be the problem at all. The problem may stem from an inability to communicate in a manner that delivers the message in an adequate manner for knowledge transfer. Amin and Stewart (1994) discovered that in Ninia Governate, Egypt most farmers failed to adopt chemical weed control in a Training and Visit approach extension system. The farmers complained that the instruction they received was too theoretical; and Amin and Stewart suggested that the theoretical nature of the instruction could be to blame for nonadoption of this weed control practice. So, in this case an apparent lack of understanding of how the farmers wanted to be instructed was a possible problem that could lead to extension failure.

Kane (1983) found a similar trend for need of involvement among farmers in Senegal. His research showed that farmers did not want to be primarily just listeners when being taught new methodologies for animal and crop production. The farmers

found this type of teaching strategy ineffective. The farmers, however, felt that "more personal contact between teacher and student, or which involved some type of student participation" was a more effective way of learning.

In other cases, there may be motivation also, but a failure on many levels which include communication and funding problems may almost halt the process of getting information to the rural farmer. The INTERPAKS (Swanson, 1984) Problems Facing National Agricultural Extension in Developing Countries found that "directors of national extension systems view the lack of mobility, extension training, and communication and teaching equipment, along with organizational problems, as the most serious problems facing their organizations." The studies population was made up of directors of national agricultural extension organizations in 129 countries in Africa, Latin America and the Caribbean, Asia, and Oceania; there was a 46 percent return rate of questionnaires sent to these directors. In these areas the study found some specific problems that effected extension success: 1) field-level personnel lack adequate transportation to efficiently reach farmers; 2) extension personnel lack training in extension methods and communication; 3) extension personnel lack essential teaching and communication equipment; and 4) extension personnel are assigned many other tasks besides extension work.

The researchers of the INTERPAKS study indicate that "agricultural extension organizations have the potential" to help alleviate some of the rural poor's problems in the developing world, but they can only help those people if mobility, use of group methods, and mass media implementation are stressed as alternative approaches to

extension. Without the above tools, John B. Claar, the Director of INTERPAKS in 1984, says that extension agents "are not likely to make a real impact on agricultural development" in the Third World.

Sometimes, the process of rural extension can be seriously hindered by an ineffective management scheme and/or hierarchy which leaves out the opinion of the most important element of any extension service, the rural farmer. Sikta (1978) found this to be true when he studied Libyan extension and its impact on the rural farmer. He found problems in the relationship and dissemination of information between the research and teaching institutions and the extension service.

Advisory committees and local leaders in Libya did not have the input needed into the content of the extension programs. The government had the lead role in determining the educational needs of the farmer rather than the local community organizations. Sikta suggested that the farmers needed to have more input in coordination with advisory committees on what is needed in their local extension programs and that the government maintain the priority of use of resources only. Sikta's research strongly pointed to a grass roots approach to extension for Libya rather than the top down method used at the time.

Research and extension organizations have to work closely together to make sure that the important current findings make their way to the hands of the agricultural producers whether they be subsistence farmers or well established farms. If one of the two organizations is perceived or perceives itself as having a more important role in the process, then obvious problems can occur with unwanted political type ramifications.

Betru (1994) saw problems in the Ethiopian system with the relationship between research and extension services. He found through a mailed out questionnaire to research capable faculty and extension staff at three educational institutions in Ethiopia that "although respondents were dissatisfied with both research and extension activities of their respective institutions, they were more dissatisfied with the extension than the research. This may infer an institutional bias favoring research activities to extension." He recommended a policy for Ethiopia to bring extension to the same level and status as research. If extension is seen as less important then research, then the data collected from the research institutions will certainly find difficulty in getting to the rural farmer and will surely have less benefit on overcoming subsistence type agriculture.

When extension is "sequentially linked to research, receiving its input from research and incorporating these into a package of services for the farmers" (Nogueira 1990), the message will get to its proper destination with minimal lag time due to unneeded political hierarchy and "jockeying". This view of extension as the natural progression and procession of knowledge through an interlinked idea of research, extension, and farmer, has as its underlying premise the equality that is inherent in a required sequence of events that ultimately have in common the same end goal.

Basis of extension methodology and design can also hinder the success of an extension program in the developing world. There is a definite chance that an extension program for the Third World designed to mimic too closely the design of a developed countries program might have failures built into it from the beginning.

Arnon (1989) commented that the United States has a large number of agricultural colleges that are backed by the good will and support of farming communities. This type of support might not exist in the developing world, he suggested, simply because the infrastructure and monetary commitment just are not available. Since much extension work comes from the land grant institutions in the United States, a new backing for extension may be needed in the undeveloped world. Rogers, Eveland, and Alden, (1984) thought that the poor nations of the developing world could simply not afford an adequate number of extension workers per thousand farmers and that these nations could not effectively make the connection between agricultural research and extension. So, it is important to consider many models when designing extension services in various parts of the world; those parts of the world may be so far removed from the developed countries that unique systems are the norm rather than the exception.

Agricultural extension services perceived through the eyes of the rural farmer may be positive, but for some reason non-agricultural people may develop views about the extension services which are less than flattering. Almogel (1976) found that in Saudi Arabian urban raised international students attending Oklahoma State University that their perceptions about extension services were lower in many areas than the responses given by rurally raised students. Assuming that the urban raised students may not have come into contact with extension personnel, how did they reach their conclusions and perceptions about the extension services? Almogel did not go into this question, but it is quite disturbing when considering some funding sources for

a disadvantage in situations where administration and monies come from nonagricultural sources in certain parts of the developing world.

In Guatemala, Ortiz et al. (1991) discovered many problem factors with the institutionalization which "impeded the establishment of a satisfactory relationship between research and extension, between extension and producers, or both." The factors they found are as follows:

- 1. Researchers viewed extension agents primarily as implementors;
- 2. There was no sharing of responsibilities (lack of joint planning);
- 3. There was little training (i.e. for extension agents, on farm research, and a lack of a common approach for research and extension);
- 4. Links depended on personal factors and were horizontal only (agreements between same level staff tended to not move up or down the chain of command);
- 5. Considerable status differences existed between researcher and extension agents (i.e. extension agents as assistants to researchers, better pay and benefits for researchers, and lack of professional relationships);
- 6. Extension agents were overloaded (extra assignments added on to their regular duties);
- 7. There was limited participation by farmers (numbers, roles, and exclusion);
- 8. Supply of inputs was insufficient, often due to delayed delivery;
- 9. Appropriate technology was lacking, effecting research and extension links.

To overcome many of these problems integration of organizations which were working relatively independent of each other were brought together with a combined new approach. In the case with Guatemala, the strategy was changed from one of technical assistance to one of technology transfer. "This switch made sense because the technologies selected for transfer were already known to be appropriate to farmers' conditions." The key to the success of technology transfer was the use of rural leaders who were seen in their communities' eyes as having great abilities as farmers. All farmers, in fact, were involved on a greater scale from joining in field activities to planning for the future activities. So, involvement and mutual respect among the people all through the dissemination process is required to achieve viable extension.

Summary

Various levels of students and residents of university communities often times have wrong or misguided views of foreign countries and foreign people even when they are seemingly neighbors. These perceptions can start at an early age and tend to persist if no significant instruction is given to the contrary. Something as simple as an unfamiliar accent can cause someone to make individual judgments about a foreign person with no real knowledge about that person except for the accent. Often times the negative perceptions that local residents have can be easily felt by the foreign students and can cause great concern in the international population.

Many people come to the U.S. to study in the hopes of solving agriculture problems in their home country. These problems include training people to become accomplished in new technology, solving financial shortages, and integrating research with extension. It has been found that the developing world can many times have completely unique situations which cannot be easily solved with models that have been successful in the developed world. Seemingly, there will be extension problems throughout the world for many years to come and qualified patient extension personnel will be in demand well into the future.

CHAPTER III

DESIGN AND METHODOLOGY

Introduction

The purpose of this chapter is to illustrate the methods used and the procedures followed in conducting this study. This chapter will describe the instrument, its design and implementation, and its data analysis methods.

Institutional Review Board (IRB)

Federal regulations and OSU policy require review and approval of all research studies that involve human subjects before investigators can begin their research. The OSU Research Services and the IRB conduct this review to protect the rights and welfare of human subjects involved in biomedical and behavioral research. In compliance with regulations, this study was granted permission to continue and was assigned the following number: AG-95-013.

Population

The purposive population of the study consisted of the 206 non-international undergraduate students in attendance in class during a single day of two sections of freshmen economics class AGEC 1114 and one section of freshmen agronomy class

AGRON 1213 the last week of classes in the spring semester 1995. The population had as its constituents: 45 freshmen males, 40 freshmen females, 31 sophomore males, 21 sophomore females, 34 junior males, 19 junior females, 12 senior males, and 4 senior females (Table I).

TABLE I
CLASS AND GENDER OF THE STUDY POPULATION

MALES	FEMALES
45	40
31	21
34	19
12	4
	45 31 34

Instrumentation and Situation

A questionnaire was developed by the researcher and faculty in the Department of Agricultural Education, Communication and 4-H. The instrument was divided into four sections which included: 1) demographic information, 2) international knowledge, 3) knowledge and perceptions of international students and policy, and 4) a bi-polar scale concerning perceptions of respondents toward international students. The question types were of the following basic types: yes/no, check one answer, circle one answer, fill in the blank, good/bad, and a seven level semantic differential. There were thirty major questions (some of which had subquestions): ten in section one; eleven in section two; and nine in section three. The bi-polar scale had fourteen sets of

adjectives/describers to consider. The instrument was pretested for validity and appropriateness in a graduate seminar within the Department of Agricultural Education, Communication and 4-H Youth Development at Oklahoma State University (refer to Appendix A). Modifications to the instrument were made in the areas of tone, length and applicability to international students based on recommendations that were given by the pretest respondents.

Collection of Data

Permission was gained from the instructors to give the instrument during the normal class time. This was determined to be the best way to get students in one location and assure a high return rate. The questionnaire was hand delivered to the students by the researcher and advisor at the beginning of class for AGRON 1213 and at fifteen minutes before the end of class in AGEC 1114 during one day for each class during the last week of the spring semester 1995. The students were informed of the nature of the instrument in that it was to describe their perceptions of international students and their knowledge of international agriculture. They were also told that their information was confidential and that their participation was voluntary. The students were given approximately fifteen minutes to complete the questionnaire. The instruments were then handed in and gathered together and the researcher then left the room with the completed questionnaires.

Data Analysis

Initially, all of the information from the questionnaires was put into a spreadsheet for ease in data handling. Then the data on the spreadsheet was transferred

into the Statistical Analysis System (SAS) 76 program. The SAS program allowed the data to be rapidly analyzed with only on entry of the initial data. The data was analyzed using descriptive statistics such as frequency distribution, percentages and means; the data was also analyzed using comparison statistical methods which included Chi Square, t-test, and ANOVA.

The semantic differential portion of the questionnaire used a 1 through 7 scale with the number 1 being the extreme positive end while the number 7 being the extreme negative. The adjective pair "light/dark" has no real positive and negative and none is intended; for this adjective pair, light was chosen as numbers 1-3 and dark was chosen as the numbers 5-7 because the OSU campus has as its majority students who consider themselves "white". So, dark, as far as skin color and race is concerned, may be seen as "different" to the majority of students on campus.

Probability levels were established at the p < .05 level.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The purpose of this chapter is to report the results from the questionnaire used to conduct the study. The purpose of the study was to gather information on how students taking classes in the College of Agricultural Sciences and Natural Resources perceived international students and international agriculture and determine any trends that might occur among the data.

The scope of this study included 206 non-international undergraduate students who made up the population of students who were in attendance in two sections of freshmen economics class AGEC 1114 and one section of agronomy class AGRON 1213 the last week of classes in the spring semester 1995. These classes are not assumed to be necessarily representative of all freshmen agriculture classes, but will give specific insight into the perceptions and knowledge of those students in the population.

Table II reports the distribution of respondents based on college class level. Of the 206 students who answered this question, 41.3 percent were freshmen, 25.2 percent were sophomores, 25.7 percent were juniors, and 7.8 percent were seniors.

TABLE II

DISTRIBUTION OF RESPONDENTS BASED ON CLASS LEVEL

CLASS LEVEL	n	%
Freshmen	85	41.3
Sophomore	52	25.2
Junior	53	25.7
Senior	16	7.8
TOTAL	206	100.0

Table III reports the distribution of the respondents based on gender. Of the 206 respondents who responded, 59.2 percent were male and 40.8 percent of them were female.

TABLE III

DISTRIBUTION OF RESPONDENTS BASED ON GENDER

GENDER	n	%
Male	122	59.2
Female	84	40.8
TOTAL	206	100.0

Illustrated in Table IV is the distribution of respondents based on age group divided into three age groups. Of the three age groups, there were 46.1 percent 18-19 years old, 40.8 percent 20-22 years old, and 13.1 percent 23 and older.

TABLE IV

DISTRIBUTION OF RESPONDENTS BASED ON AGE GROUP

AGE GROUP	n	%
18-19	95	46.1
20-22	84	40.8
23+	27	13.1
TOTAL	206	100.0

Presented in Table V is a breakdown of respondents by the majors.

TABLE V
DISTRIBUTION OF RESPONDENTS BASED ON MAJOR

MAJOR	n	%
Animal Science	95	46.3
Agricultural Economics	36	17.6
Agricultural Education	19	9.3
Agricultural Communications	11	5.4
Environmental Science	10	4.9
Agronomy	10	4.9
Forestry	7	3.4
Wildlife	7	3.4
Horticulture	5	2.4
Other	5	2.4
TOTAL	205	100.0

Indicated in Table VI is the distribution of students based on the size of the community in which they were raised. Of those who responded, 34.1 percent said they were raised in a rural community, 9.8 percent were from cities less than 1,000 in population, 27.8 percent were from cities between 1,000 and 10,000 in population, 19 percent were from cities between 10,000 and 50,000 in population. This data shows that over two-thirds (71.7 percent) of the respondents were from cities of 10,000 people or less.

TABLE VI

DISTRIBUTION OF RESPONDENTS BASED ON COMMUNITY SIZE WHERE RAISED

COMMUNITY SIZE	n	%
rural	70	34.1
<1,000	20	9.8
1,000-10,000	57	27.8
10,000-50,000	39	19.0
50,000-100,000	10	4.9
>100,000	9	4.4
TOTAL	205	100.0

Table VII shows the distributions of the respondents based on whether their parents owned a family farm, whether the respondents considered their family to be either farmers and/or ranchers, and whether the respondents would enter an agricultural

field after graduation from the university. Of the respondents who answered these questions, 52.9 percent indicated that their parents own a family farm, 47.8 percent indicated that they considered their family to be farmers and/or ranchers, and 82.8 percent indicated that they wanted to work in an agricultural field after graduation. The difference in those whose parents own a family farm and those who consider their family to be either farmers and/or ranchers may come from the fact that families may own farms, but actually have some other form of primary employment or are retired.

TABLE VII

DISTRIBUTION OF RESPONDENTS BASED ON AGRICULTURAL BACKGROUND

QUESTION AND ANSWER	n	<u></u> %
Do your parents own a family farm?		
Yes	109	52.9
No	97	47.1
Do you consider your family to be eith	her farmers and/or ranch	ers?
Yes	98	47.8
No	107	52.2
Do you intend to work in an agricultu	ral field after graduation	1?
Yes	168	82.8
No	35	17.2

Determined in Table VIII is the distribution of respondents who had traveled outside of the United States sometime in the past. It was found that of those that

responded 36.6 percent had traveled outside the US at some time and 63.4 percent had not.

DISTRIBUTION OF RESPONDENTS BASED ON WHETHER OR NOT THEY HAD TRAVELED OUTSIDE OF THE UNITED STATES

RESPONSE	n	%
Yes	75	36.6
No	130	63.4
TOTAL	205	100.0

Table IX represents the distribution of responses based on the questionnaire section "General World Agricultural Knowledge". There were eleven questions in this section. Nine of the questions had possible correct answers while the other two questions, "Which area of the world has the most trouble feeding its people?" and "Why does famine occur in the world?", were considered to have answers which were based on opinion. It was found that 82.7 percent of the respondents agreed the US has to import agricultural products while 12.8 percent believed the US did not have to. Interestingly, 14.6 percent of the students thought Africa was a country while the other 85.4 percent knew it was a continent. Africa was considered the area which had the most trouble feeding its people also with 81.0 percent of the total answers, Asia was a distant second with 8.5 percent, and the Middle East was third with 5.5 percent. The

respondents believed the United States to be the leading world wheat producer with 43.6 percent of the responses, Russia received 37.7

TABLE IX

DISTRIBUTION OF RESPONDENTS BASED ON GENERAL WORLD AGRICULTURE KNOWLEDGE

QUESTION AND RESPONSE	n	%
Does the US have to import agricultura	l products?	
Yes (correct)	177	87.2
No	26	12.8
Africa is considered a:		
Continent (correct)	175	85.4
Country	30	14.6
Which area of the world has the most to	rouble feeding its peop	ole?
Africa	162	81.0
Asia	17	8.5
Middle East	11	5.5
South America	6	3.0
Eastern Europe	1	0.5
North America	. 1	0.5
Western Europe	1	0.5
Central America	1	0.5
Australia	0	0.0
Which country grows the most wheat?		
United States	89	43.6
Russia	77	37.7
China (correct)	29	14.2
Argentina	9	4.4
Venezuela	0	0.0

TABLE IX (CONTINUED)

DISTRIBUTION OF RESPONDENTS BASED ON GENERAL WORLD AGRICULTURE KNOWLEDGE

QUESTION AND RESPONSE	n	%
Who grows most of the world's bananas	??	
Large Companies	103	50.7
Small Farmers (correct)	100	49.3
What meat is primarily eaten in Eastern	Europe?	
Pork (correct)	50	25.5
Mutton	47	24.0
Horse	30	15.3
Beef	23	11.7
Chicken	23	11.7
Fish	23	11.7
Central America (correct) South America	135 64	67.2 31.8
North America	2	1.0
Do the seasons occur at the same time i	n North and South Ar	nerica?
Yes	27	13.5
No (correct)	173	86.5
Do US farmers grow/raise enough food	to feed the entire wo	rld?
Yes	45	22.4
2 00		

TABLE IX (CONTINUED)

DISTRIBUTION OF RESPONDENTS BASED ON GENERAL WORLD AGRICULTURE KNOWLEDGE

QUESTION AND RESPONSE	n	<u>%</u>
What is a crop grown in the US that ori	ginated in another co	untry?
Could Identify	152	75.6
Could Not Identify	49	24.4
Why does famine occur in the world?		
Overpopulation	98	49.5
Distribution	45	22.7
Government Oppression	24	12.1
Weather	17	8.6
Other	11	5.6
War	2	1.0
Terrorism	1	0.5
Bigotry	0	0.0

percent of the responses, and the actual correct answer, China, received 14.2 percent of the responses. When asked who grows most of the world's bananas, the respondents answered with 50.7 percent of the responses that large companies did most of the growing while the correct answer, small farmers, received 49.3 percent of the responses. The distribution on what meat is most commonly eaten in Eastern Europe had a fairly even spread among the six possibilities with 11.7 percent for beef, 25.5 percent for pork (the correct answer), 24.0 percent for mutton, 15.3 percent for horse, 11.7 percent for chicken, and 11.7 percent for fish.

On the question "which part of the world has almost the same temperature year round", most of the respondents answered correctly "Central America" with 67.2 percent of the total, but 31.8 percent thought that South America was the preferable answer. The respondents seemed to fare better on whether or not the seasons in North America and South America occur at the same time; 86.5 percent said the seasons do not occur at the same time while there was 13.5 percent who thought the seasons do occur at the same time. Over three-fourths (77.5 percent) of the respondents believed that US farmers grow/raise enough food to feed the entire world and almost one-fourth (24.4 percent) could not identify a crop grown in the US that originated in another country. The respondents answered primarily three choices on why famine occurs in the world starting with overpopulation as the first choice (49.5 percent), distribution as the second (22.7 percent) and government oppression as the third (12.1 percent).

As can be seen in Table X, 60 percent of the respondents who gave an answer for an approximate percentage of OSU students from a foreign country were within five percentage points on either side of the correct answer 9.8 percent rounded up to 10 percent, however, 40 percent were outside that range. Only 21.4 percent of the respondents answering had been to an international students residence. When asked to tell how international students pay for their US education there was approximately a five way split between a possibility of the nine answers; first was the US government (23.6 percent), second was scholarships (20.4 percent), third was foreign government (17.3 percent), fourth was family (16.8 percent), and fifth was student loans (12.0 percent). The actual correct answers from OSU International Student Services for

TABLE X

DISTRIBUTION OF RESPONDENTS BASED ON KNOWLEDGE AND PERCEPTIONS OF INTERNATIONAL STUDENTS AND INTERNATIONAL ISSUES

QUESTION AND RESPONSE	n	%		
About what percentage of OSU students	are from a foreign co	ountry?		
5-15% (9.8% is correct)	66	60.0		
outside 5-15% range	44	40.0		
Have you ever been to an international s	student's residence?			
Yes	43	21.4		
No	158	78.6		
How do you think international students	pay for their US educ	cation?		
US Government	45	23.6		
Scholarships	39	20.4		
Foreign Government	33	17.3		
Family	32	16.8		
Student Loans	23	12.0		
University Funds	12	6.3		
Other	4	2.1		
Job	3	1.6		
Host Families	0	0		
Do you think international students come the US?	e to the US to study it	n hopes of getting a job is		
Yes	122	61.3		
No	77	38.7		
Do you think international students want	t to return to their ho	me country to work?		
Yes	89	45.2		
No	108	54.8		

TABLE X CONTINUED

DISTRIBUTION OF RESPONDENTS BASED ON KNOWLEDGE AND PERCEPTIONS OF INTERNATIONAL STUDENTS AND INTERNATIONAL ISSUES

QUESTION AND RESPONSE	n	%
International students come to the US leaducation?	because they believe	they will receive a better
True	165	82. 1
False	36	17.9
Would you be willing to study at a univer	rsity in another coun	utry?
Yes	53	26.2
No	149	73.8
Are you familiar with NAFTA?		
Yes	138	68.7
No	63	31.3
If yes (to above), do you think it is good	or bad for the US?	
Good	93	72.1
Bad	36	27.9
Are you familiar with GATT?		
Yes	48	24.0
No	152	76.0
If yes (to above), do you think it is good	or bad for the US?	
Good	31	68.9
Bad	14	31.1

1994/95 are as follows: 1) personal and family (74.3 percent); 2) U.S. college/university (15.3 percent); 3) home government/university (4.9 percent); 4) U.S. government (3.2 percent; and 5) private foreign sponsor (1.6 percent).

Also in Table X it can be seen that most (61.3 percent) answering respondents thought international students come to study in the US in hopes of getting a job in the US; most (54.8 percent) thought that international students did not want to return to their home country to work; and most (82.1 percent) said international students come to the US because the international students believe they will receive a better education. Almost three-fourths (73.8 percent) of the answering respondents said they would not be willing themselves to study at a university in another country. Most (68.7 percent) answering respondents said they were familiar with NAFTA, but most (76.0 percent) said they were not familiar with GATT. Of those who said they were familiar with NAFTA, most (72.1 percent of those responding) thought NAFTA was "good" for the US, while most (68.9 percent of those responding) of those who said they were familiar with GATT thought it was "bad" for the US.

Chi-Square analyses were run to see if there was any significant difference in responses to questions on general world agricultural knowledge compared to respondents' year in school, gender, and whether or not respondents had traveled outside the US. This data is presented in table XI. It can be seen that there were no significant differences at the 0.05 level in the responses given when compared to respondents' year in school or gender, however there were three questions that were significant at the 0.05 level when compared to whether the respondents had traveled

outside the US. Those respondents who had been outside the US could identify correctly Africa as a continent significantly (0.01), could identify China grows the most wheat significantly (0.0004), and could identify the seasons occur differently in North and South America significantly (0.045) as compared to those respondents who had not been outside the US.

TABLE XI

CHI-SQUARE ANALYSIS OF GENERAL WORLD AGRICULTURAL
KNOWLEDGE VERSUS RESPONDENTS YEAR IN SCHOOL, GENDER, AND
TRAVEL OUTSIDE OF THE UNITED STATES

QUESTION	CLASS(PROB)	GENDER(PROB)	TRAVEL(PROB)
Does the US have to import any agricultural products?	0.137	0.119	0.149
Africa is considered a:	0.427	0.149	0.010**
Which area of the world has the most trouble feeding it people?	0.260	0.745	0.004*
Which country grow the most wheat?	0.412	0.457	0.871
Who grows most of the world's bananas?	0.718	0.101	0.298
What meat is primarily eaten in Eastern Europe?	0.517	0.127	0.564
Which part of the world has almost the same temperature year round?	0.401	0.541	0.623
Do the seasons occur at the same time in N.A. and S.A.?	0.985	0.573	0.045*
Do US farmers grow/raise enough food to feed the world?	0.148	0.898	0.320
What is a crop grown in the US that originated in another country?	0.325	0.752	0.645

^{*} significant at p < .05; ** significant at p < .01

Table XII begins the analysis of the respondents based on the bi-polar scale portion of the questionnaire. It was hoped this portion of the questionnaire would provide information on possible stereotypes and misinformation that students may have about international students or if students view international students any differently than they view themselves. The scale of 1 through 7 was chosen to rate each bi-polar scale with 1 being perceived as the extreme positive trait and 7 as the extreme negative. Table XII shows that "like me/not like me" received the highest mean response at 5.14 and 58.4 percent of those that responded rated international students in the "not like me" range of 5-7. The "light/dark" mean was second highest at 4.89 and 47.7 percent of those that responded rated international students in the "dark" 5-7 range. There were two other negative sided means: "large/small" (4.83) and "strong/weak" (4.53). Of those that responded to these two bi-polar scales, 45.9 percent chose the 5-7 range for small and 35.8 percent chose the 5-7 range for weak. The lowest mean was found on "smart/dumb" at 2.90; 62.6 percent of those that responded rated international students in the 1-3 "smart" range. Also having low means were "successful/not successful" at 3.42 and "good/bad" at 3.43. Of those that responded, 44.6 percent chose the 1-3 range for "successful" and 48.4 percent chose the 1-3 range for "good". Also, it should be noted that there are three bipolar adjectives with interesting modes for those who responded: "like me/not like me" (7), "rich/poor" (6), and smart/dumb **(2)**.

TABLE XII

DISTRIBUTION OF RESPONDENTS BASED ON QUESTIONNAIRE SECTION: BI-POLAR SCALE

		1	· -	2		3	-	4		5		6		7	Mean
Bi-polar adjective	n	%	n	%	n	%	n	%	n	%	n	%	n	<u>%</u>	
Good/Bad	27	(13.8)	34	(17.3)	34	(17.3)	61	(31.1)	19	(9.7)	10	(5.1)	11	(5.6)	3.43
Clean/Dirty	26	(13.1)	19	(9.6)	23	(11.6)	52	(26.3)	35	(17.7)	22	(11.1)	21	(10.6)	4.02
Light/Dark	0	(0)	0	(0)	7	(3.6)	94	(48.7)	25	(13.0)	48	(24.9)	19	(9.8)	4.89
Rich/Poor	16	(8.3)	20	(10.4)	38	(19.7)	90	(46.6)	18	(9.3)	6	(3.1)	5	(2.6)	3.58
Clear/Confusing	3	(1.5)	5	(2.6)	8	(4.1)	49	(25.0)	28	(14.3)	54	(27.6)	49	(25.0)	5.31
Friendly/Unfriendly	7	(3.6)	22	(11.3)	30	(15.4)	53	(27.2)	25	(12.8)	31	(15.9)	27	(13.8)	4.37
Large/Small	4	(2.1)	0	(0)	1	(0.5)	99	(51.6)	32	(16.7)	28	(14.6)	28	(14.6)	4.83
Smart/Dumb	36	(18.5)	57	(29.2)	29	(14.9)	56	(28.7)	5	(2.6)	5	(2.6)	7	(3.6)	2.90
Successful/Not Successful	14	(7.3)	42	(21.8)	30	(15.5)	85	(44.0)	6	(3.1)	9	(4.7)	7	(3.6)	3.42
Fast/Slow	8	(4.2)	14	(7.3)	28	(14.6)	95	(49.5)	21	(10.9)	13	(6.8)	13	(6.8)	4.03
Like Me/Not Like Me	5	(2.6)	8	(4.2)	9	(4.7)	58	(30.2)	27	(14.1)	24	(12.5)	61	(31.8)	5.14
Strong/Weak	3	(1.6)	5	(2.6)	13	(6.7)	103	(53.4)	26	(13.5)	21	(10.9)	22	(11.4)	4.53
Unselfish/Selfish	7	(3.6)	11	(5.7)	17	(8.8)	94	(48.7)	25	(13.0)	13	(6.7)	26	(13.5)	4.36
Happy/Sad	9	(4.7)	27	(14.0)	21	(10.9)	113	(58.5)	6	(3.1)	7	(3.6)	10	(5.2)	3.73

Table XIII shows the results of running an ANOVA on the year in college of the respondents versus the responses on the bi-polar scale portion of the questionnaire. The ANOVA was ran on the thinking that the longer respondents have the potential for contact with international students on campus, the more likely perceptions that respondents might have about international students could change. As can be seen from Table XIII, only "selfish/unselfish" showed a significant response at the 0.05 level.

ANOVA RESULTS OF TESTING IF YEAR IN COLLEGE MAKES A
DIFFERENCE IN RESPONSES TO BI-POLAR SCALE

BI-POLAR ADJECTIVE	PROBABILITY
Selfish/Unselfish	0.0399*
Strong/Weak	0.1296
Clear/Confusing	0.1396
Smart/Dumb	0.2555
Fast/Slow	0.2695
Like Me/Not Like Me	0.3696
Rich/Poor	0.4102
Good/Bad	0.4164
Friendly/Unfriendly	0.4303
Large/Small	0.4507

^{*} significant at p < .05

TABLE XIII CONTINUED

ANOVA RESULTS OF TESTING IF YEAR IN COLLEGE MAKES A DIFFERENCE IN RESPONSES TO BI-POLAR SCALE

BI-POLAR ADJECTIVE	PROBABILITY
Successful/Not Successful	0.6511
Clean/Dirty	0.8094
Happy/Sad	0.9201
Light/Dark	0.9269

In Table XIV the results of a t-test of the bi-polar scale section of the questionnaire versus the gender of the respondents is shown. It can be seen that six of the bi-polar scales; good/bad, friendly/unfriendly, large/small, like me/not like me, strong/weak, and unselfish/selfish showed a significant difference at the 0.05 confidence level based on gender. Three bi-polar scales, clean/dirty, clear/confusing, and fast/slow showed a significant difference based on gender at the 0.10 level. In all of the cases of significant differences based on gender, the males had the higher mean score as compared to the females on their bi-polar scale responses.

TABLE XIV

T-TEST RESULTS OF COMPARING IF GENDER DETERMINES A
DIFFERENCE IN RESPONSES TO BI-POLAR SCALE

BI-POLAR ADJECTIVE	PROBABILITY
Strong/Weak	0.0013**
Unselfish/Selfish	0.0062**
Good/Bad	0.0066**
Like Me/Not Like Me	0.0130*
Large/Small	0.0218*
Friendly/Unfriendly	0.0383*
Clear/Confusing	0.0682
Clean/Dirty	0.0870
Fast/Slow	0.0917
Light/Dark	0.1618
Successful/Not Successful	0.1694
Rich/Poor	0.3293
Happy/Sad	0.3570
Smart/Dumb	0.7939

^{*}significant at p < .05; significant at p < .01

An ANOVA was run to determine if there was any significant difference to the bi-polar scale portion of the questionnaire based on the size of the community in which respondents were raised. Table XV shows the results of the ANOVA. At the 0.05 level there was only one significant difference and that was on the bi-polar scale "unselfish/selfish" which had mean values of 4.51 for respondents from rural and cities below 1,000, 4.38 for respondents in cities from 1,000 to 50,000, and 3.56 for respondents from cities that were 50,000 and above.

A t-test was performed to determine if there was a significant difference to responses on the bi-polar scale based on whether the respondents had traveled outside the US. The probability values from the t-test are presented in table XVI. Only one bi-polar scale, "good/bad, showed a significant difference at the 0.05 level in response based on if the respondent had traveled outside the US.

ANOVA RESULTS OF TESTING IF THE SIZE OF THE COMMUNITY IN WHICH RESPONDENTS WERE RAISED SHOWS A DIFFERENCE IN RESPONSES TO BI-POLAR SCALE

BI-POLAR ADJECTIVE	PROBABILITY
Selfish/Unselfish	0.0421*
Friendly/Unfriendly	0.0669
Rich/Poor	0.1233
Clean/Dirty	0.1371
Good/Bad	0.1434
Like Me/Not Like Me	0.2575
Clear/Confusing	0.2995
Successful/Not Successful	0.3453
Large/Small	0.3862
Light/Dark	0.5569
Smart/Dumb	0.6762
Fast/Slow	0.6933
Happy/Sad	0.7991
Strong/Weak	0.8336

^{*}significant at p < .05

TABLE XVI

T-TEST RESULTS OF DETERMINING IF RESPONDENT TRAVEL OUTSIDE
THE US MAKES A DIFFERENCE IN RESPONSES TO BI-POLAR SCALE

BI-POLAR ADJECTIVE	PROBABILITY
Good/Bad	0.0495*
Large/Small	0.0692
Like Me/Not Like Me	0.0988
Unselfish/Selfish	0.1460
Strong/Weak	0.1787
Clean/Dirty	0.1938
Friendly/Unfriendly	0.2527
Clear/Confusing	0.3989
Smart/Dumb	0.4442
Fast/Slow	0.5612
Light/Dark	0.6888
Rich/Poor	0.7601
Happy/Sad	0.8958
Successful/Not Successful	0.9778

^{*}significant at p < .05

A t-test was also run to determine if there was a significant difference in responses to the bi-polar scale portion of the questionnaire based on whether or not respondents had ever been to the residence of an international student before. The probability values from the t-test are shown in Table XVII. There were four bi-polar scales, "clean/dirty", "clear/confusing", "like me/not like me", and "friendly/unfriendly" that were found to be significant at the 0.05 confidence level. Two bi-polar scales, "good/bad" and "successful/not successful", were found to be significant at the 0.10 confidence level.

TABLE XVII

T-TEST RESULTS OF DETERMINING IF RESPONDENTS WHO HAD BEEN TO AN INTERNATIONAL STUDENT'S RESIDENCE SHOWED A DIFFERENCE IN RESPONSES TO BI-POLAR SCALE

BI-POLAR ADJECTIVE	PROBABILITY
Clean/Dirty	0.0188*
Clear/Confusing	0.0285*
Like Me/Not Like Me	0.0395*
Friendly/Unfriendly	0.0493*
Good/Bad	0.0791
Successful/Not Successful	0.0951
Smart/Dumb	0.1296

^{*}significant at p < .05

TABLE XVII (CONTINUED)

T-TEST RESULTS OF DETERMINING IF RESPONDENTS WHO HAD BEEN TO AN INTERNATIONAL STUDENTS RESIDENCE SHOWED A DIFFERENCE IN RESPONSES TO BI-POLAR SCALE

BI-POLAR ADJECTIVE	PROBABILITY
Strong/Weak	0.2526
Unselfish/Selfish	0.3959
Large/Small	0.4183
Happy/Sad	0.4554
Fast/Slow	0.4924
Light/Dark	0.6718
Rich/Poor	0.7114

Not shown in a table, but statistically performed was a univariate analysis to determine if there was a significant difference based on year in school in the response to the question "about what percentage of OSU students are from a foreign country"? The probability value for this analysis was 0.488, not significant. Also, a univariate analysis was run to determine the overall mean (4.18) and mode (4) responses to the bipolar scale.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The purpose of this chapter is to present conclusions and recommendations derived from detailed observation of the findings.

Purpose of the Study

The purpose of this study was to determine how selected students attending classes in the College of Agricultural Sciences and Natural Resources at OSU perceive international students and international agriculture.

Objectives of the Study

In order to accomplish the purpose of this study, the investigation was directed toward the following specific objectives:

- Determine demographic characteristics of selected students in freshmen agricultural economics and agronomy courses.
- 2. Determine the selected students' knowledge of international agriculture.
- Determine selected students' perceptions of international issues that effect
 U.S. agriculture.
- 4. Describe students perceptions of international students.

Major Findings

Tables XVIII and XIX are summary tables which present the general overall major findings. It can be seen that the typical respondent was a freshmen male in his late teens, majoring in animal science. Respondents were typically from relatively small towns, had an agriculture background and had not traveled outside the US.

Specifically, the majority of respondents seemed to lack a basic knowledge of the international student population, especially concerning the number of students on campus and how these students pay for their education as compared to the records from International Student Services. Respondents who had been to an international student's residence had more positive feelings toward international students. Respondents who had traveled outside the U.S. could answer more questions on world agriculture correctly than those respondents who had not traveled internationally. Female respondents had more positive perceptions of international students as compared to males.

TABLE XVIII

THE TYPICAL RESPONDENT BASED ON DEMOGRAPHICS

SUBJECT	PRIMARY RESPONSE
Class Level	Freshmen
Gender	Male
Age	18-19
Major	Animal Science
Community	< 10,000
Farm/Ranch Background	Yes
Traveled Outside US	No

TABLE XIX

SUMMARY OF MAJOR FINDINGS BASED ON KNOWLEDGE AND PERCEPTIONS OF INTERNATIONAL AGRICULTURE AND INTERNATIONAL STUDENTS

SUBJECT	KNOWLEDGE or PERCEPTION
Basic World Ag Knowledge	Yes
Familiar With International Ag Issues	Varied
Knowledge About International Students	No
Perceptions Of International Students	Neutral to Positive

TABLE XVIII

THE TYPICAL RESPONDENT BASED ON DEMOGRAPHICS

SUBJECT	PRIMARY RESPONSE			
Class Level	Freshmen			
Gender	Male			
Age	18-19			
Major	Animal Science			
Community	< 10,000			
Farm/Ranch Background	Yes			
Traveled Outside US	No			

TABLE XIX

SUMMARY OF MAJOR FINDINGS BASED ON KNOWLEDGE AND PERCEPTIONS OF INTERNATIONAL AGRICULTURE AND INTERNATIONAL STUDENTS

SUBJECT	KNOWLEDGE or PERCEPTION			
Basic World Ag Knowledge	Yes			
Familiar With International Ag Issues	Varied			
Knowledge About International Students	No			
Perceptions Of International Students	Neutral to Positive			

Conclusions

The following conclusions are made based on the findings of this study:

- 1. The typical respondent in this study was male, freshmen, 18-19 years old, an animal science major, from a city of less than 10,000 people, agricultural backgrounded, intending to work in agriculture when graduated and not a traveler outside the United States.
- 2. Respondents have a good knowledge of general world agriculture. However, the respondents were less knowledgeable concerning specifics in international agricultural production.
- 3. There seemed to be considerable variation among the respondents regarding the number of international students on campus.
- 4. The respondents seemed to have misconceived perceptions as to how international students pay for their education.
- 5. The respondents seemed to believe that international students want to stay in the US to work and do not plan to return to their home country to work.
- 6. The respondents seemed to be rather familiar with NAFTA, but only vaguely so with GATT. Furthermore, the respondents who were familiar with these policies seemed to think they are in the national interest of the United States.
- 7. Class level among respondents seems to make little difference in their perceptions of international students

- 8. Travel outside the US was positively correlated with international agriculture knowledge and seems to create more positive feeling toward international students.
- 9. Female respondents feel more positively toward international students than do males.
- 10. Visiting an international student's residence was positively correlated with positive perceptions toward international students.

Recommendations

Based on the conclusions of this study the following recommendations are presented:

- 1. Students should be put in the position to "need to know" information on world agricultural production and on world geography as it relates to climate.
- 2. More instruction should be provided concerning international agricultural policy that involves the United States.
- 3. Functions and projects need to be developed in which resident students are directly involved with international students to further knowledge and understanding between native and international students.
- 4. Students should be encouraged to travel internationally either with school functions or on their own.

5. International student organizations and servers, university and private, should promote greater knowledge among the local populace concerning international students.

Recommendations for Additional Research

It is recommended that a similar study be conducted on a representative campus sample of students and within other colleges and departments to determine the overall feelings toward international students.

SELECTED BIBLIOGRAPHY

- Akpan-Iquot, E. F. (1980). An investigation of foreign students' problems in selected Oklahoma institutions of higher learning. Unpublished doctoral dissertation, Oklahoma State University, Stillwater, OK.
- Almogel, A. I. (1976). An assessment of the present and future importance attached selected extension activities for Saudi Arabia. Unpublished master's thesis, Oklahoma State University, Stillwater, OK.
- Amin, A. H. and Stewart, B. R. (1994). Training and visit extension program outcomes in Ninia Governate, Egypt. <u>Journal of Agricultural Education</u>, 35(3), 30-34.
- Arnon, I. (1989). Agricultural research and technology transfer. New York, NY: Elsevier Applied Science Publishers Ltd.
- Betru, T. (1994). A study of the organization and operational strategies to link research and extension in the agricultural higher education institutions in Ethiopia. Unpublished doctoral dissertation, Oklahoma State University, Stillwater, OK.
- Collinson, M. (1984). Farming Systems Research: Diagnosing the problem. In M. M. Cernea, J. K. Coulter, and J. F. A. Russel (eds.), Research-extension-farmer: A two-way continuum for agricultural development, (pp 71-87). Washington, DC: The World Bank.
- Globetti, E. C., Globetti, G., Brown, C. L., and Smith, R. E. (1993). Social interaction and multiculturalism. NASPA Journal, 30(3), 209-218.
- Haas, M. E. and Clary, E. (1985). The perceptions of other nations by students in northwestern Arkansas. Prepared by M. E. Haas and E. Clary Arkansas Tech University. Russellville, AR. ERIC Document 257 710.
- Haas, M. E. and Inuwa, A. R. (1992). The perceptions of Nigerian students in Kano State of other nations and other people. <u>Annual Meeting American Educational</u> Research <u>Association</u>. ERIC Document 343 844.

- Johnson, R. and Jenks, F. L. (1994). Native speakers' perceptions of nonnative speakers: related to phonetic errors and spoken grammatical errors. <u>Annual Meeting of the Teachers of English to Speakers of Other Languages</u> (28th, Baltimore, MD, March 8-12, 1994). ERIC Document 372 653.
- Jones, W. T. (1990). Perspectives in ethnicity. In L. V. Moore (Ed.), <u>Evolving</u>

 <u>Theoretical Perspectives on Students</u> (pp. 59-72). San Francisco: Jossey-Bass.
- Kane, A. (1983). Analysis of extent of use and effectiveness of selected methods of disseminating information on crop and livestock production in Senegal.

 Unpublished master's thesis, Oklahoma State University, Stillwater, OK.
- Mwangi, J. G. and McCaslin, N. L. (1994). The motivation of Kenya's Rift Valley extension agents. <u>Journal of Agricultural Education</u>, 35(3), 35-43.
- Nogueira, R. M. (1990). The effect of change in state policy and organization of agricultural research and extension links: A Latin American Perspective. In D. Kaimowitz (ed.), Making the link: Agricultural research and technology transfer in developing countries, (pp. 75-109). Boulder, CO: West View Press.
- Ortiz, R., Ruano, S., Juarez, H., Olivet, F., and Meneses, A. (1991). A new model for technology transfer in Guatemala: Closing the gap between research and extension. The Hague: International Service for National Agricultural Research (ISNAR).
- Rogers, E. M., Eveland, J. D., and Alden, S. B. (1984). Extending the agricultural extension model. Lanham, MD: University Press of America. Sigman, V. A.
- Swanson, B. E. (1984). <u>Problems facing national agricultural extension in developing countries</u>. Urbana, IL: University of Illinois at Urbana-Champaign: International Programs for Agricultural Knowledge Systems (INTERPAKS).
- Sikta, F. A. (1978). An analysis of current procedures used in the agricultural extension service in Libya with recommendations for future improvement. Unpublished master's thesis, Oklahoma State University, Stillwater, OK.
- Tesseneer, S. W. (1981). Developing Community Awareness. <u>Annual Conference of the National Association for Foreign Student Affairs</u> (35th, Cincinnati, OH, May 24-27, 1981). ERIC Document 232 438.
- Webster's New Collegiate Dictionary. (1976). Springfield, MA: G & C Merriam Company.

APPENDIX A

QUESTIONNAIRE

A Study of Selected College of Agriculture Freshmen on Their Perceptions of International Students and Knowledge of International Agriculture

I. GENERAL INFORMATION	
1. Are you an international student?yesno If yes, what country are you from?	
*If you are an international student, you do not have to answer the rest of this questionnaire.	
2. What year are you in school?freshmansophomorejuniorseniorgraduate student	
3. Gender:malefemale	
4. Age:	
5. What is your major at OSU?	
6. How would you describe the population of the community in which you were raised ruralcity below 1,000 1,000 to 10,000over 100,000over 100,000	1?
7. Do your parents own a family farm?yesno	
8. Do you consider your family to be either farmers and/or ranchers?yesno	
9. Do you intend to work in an agricultural field after graduation?yesno If so, in what field(s)	
10. Have you ever traveled outside the US? yesno If so, where and when?	

Please Choose The Answer You Feel Is Best

A. General World Agricultural Knowledge

11.	Does the US have to import agricultural products? yesno
12.	Africa is considered a:countrycontinent
13.	Which area of the world has the most trouble feeding its people? (circle one) South America Asia Western Europe Africa Middle East Eastern Europe North America Australia Central America
14.	Which country grows the most wheat? United StatesChinaArgentinaVenezuelaRussia
15.	Who grows most of the world's bananas?large companiessmall farmers
16.	What meat is eaten most commonly in Eastern Europe? beefporkmuttonhorsechickenfish
17.	Which part of the world has almost the same temperature year round? North AmericaSouth America
18.	Do the seasons occur at the same time in North America and South America?
19.	Do US farmers grow/raise enough food to feed the entire world? yesno
20.	What is a crop grown in the US that originated in another country?
21.	Why does famine occur in the world? (circle the best choice) distribution government oppression weather overpopulation bigotry terrorism war other (write)
В.	Knowledge And Perceptions Of International Students And Policy
22.	About what percentage of OSU students are from a foreign country?
23.	Have you ever been to an international student's residence? yes no
24.	How do you think international students pay for their US education?(circle one) US Government Family Job Student Loans Scholarships University Funds Host Families Foreign Government Other (write)

	Do you think international students come to the US to study in hopes of getting a joi in the US?							
	yes		_no					
26 .]	Do you think international students want to return to their home country to work?							
	yes							-
	education.			o the US	because t	hey belie	ve they w	ill receive a better
	true		false					
28.	Would you no	be willi	ing to study	y at a univ	versity in	another	country?	yes
29.		o you tl	ith NAFTA hink it is go g has the N	ood or ba	d for the l	US?		
30. A		o you tl	th GATT? hink it is go g has the C	ood or ba	d for the I	U S ?		
	ow, describ ne seven sp					student	s by placi	ng a check in one
			<u>In</u>	ternation	al Student	ts Are:		
Q	good							bad
_	lirty							clean
	ight _							dark
	poor							rich
_	lear							onfusing
frie	ndly							unfriendly
1:	arge							small
dı	umb							smart
succe	-							not successful
	fast							slow
	me							not like me
	ong							weak
	lfish _.							unselfish
ha	рру							sad

THANK YOU FOR YOUR TIME.

VITA

Troy Alen Pierce

Candidate for the Degree of

Master of Science

Thesis:

SELECTED STUDENTS' PERCEPTIONS OF INTERNATIONAL

STUDENTS AND KNOWLEDGE OF INTERNATIONAL

AGRICULTURE

Major Field: Agricultural Education

Biographical Data:

Personal Data: Born in Wichita, Kansas, on October 28, 1965, son of Le McKeown and James Pierce.

Education: Graduated from Edmond Memorial High School, Edmond, Oklahoma, May, 1984; received the Associate of Arts degree from Seminole Community College, Sanford, Florida, August, 1990; graduated from the University of Central Florida, Orlando, Florida, December, 1992, with a Bachelor of Science degree in Molecular Biology and Microbiology; completed requirements for the Master of Science degree in Agricultural Education, Oklahoma State University in July, 1995.

Professional Experience: House Manager for the Orlando Science Center, Orlando, Florida, 1991-1992. Biological Technician for USDA, ARS, US Horticultural Research Lab, Orlando, Florida, 1992-1993. Student Professional for the Department of Horticulture, Oklahoma State University, 1994 to present.

Organizations and Awards: Phi Theta Kappa, 1989-1990; Parlett award for outstanding chemistry student, 1990.

OKLAHOMA STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD HUMAN SUBJECTS REVIEW

Date: 04-21-95 IRB#: AG-95-013

Proposal Title: A STUDY OF SELECTED COLLEGE OF AGRICULTURE FRESHMEN ON THEIR PERCEPTIONS OF INTERNATIONAL STUDENTS AND KNOWLEDGE OF INTERNATIONAL AGRICULTURE

Principal Investigator(s): Bill Weeks, Troy A. Pierce

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

APPROVAL STATUS SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING.

APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval are as follows:

Signature:

Chair of Institutional Review Box

Date: April 25, 1995