

CAREER OBJECTIVES OF INTERNATIONAL STUDENTS STUDYING
AGRICULTURE, FACULTY AWARENESS OF THESE
OBJECTIVES AND JUDGEMENTS OF BOTH
GROUPS AS TO EFFECTIVENESS OF
LEARNING EXPERIENCES PRO-
VIDED AT OKLAHOMA
STATE UNIVERSITY

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CHAPTER I

INTRODUCTION

Despite many convincing arguments that graduate education in the United States does not offer the most appropriate preparation to enable students from developing countries to meet the needs of their homeland, the fact remains that every year, large numbers of these students come to the U.S. to pursue graduate and undergraduate studies. It is by examining the reasons for this continuing flow that one may find a relationship between the relevance of the educational program offered in the United States and the style of development that exists in the home country. Projecting this examination into the future, it may be possible to ascertain whether these reasons will be valid in the next decade. On the basis of such analysis one may then discuss the kind of graduate and undergraduate education that will be needed in the U.S. to continue attracting students from developing countries.

Statement of the Problem

International students studying agriculture at Oklahoma State University will, in most cases, return to their homelands where they are expected to use the knowledge and skills they have acquired abroad. Ideally, this should result in the betterment of their countries. If the large number of international students currently in resident study at Oklahoma State University can be directed into high quality educational

experiences, it is important that we look at the agricultural program and try to determine whether the present program meets the needs which are found prevalent in their nations. Further, it is important that such a large number of international students be well prepared to serve their countries in the various areas of specialization and be well-equipped to teach, supervise research or render other needed services upon completion of their degree program at Oklahoma State University. The problem is that we are not sure that this is always being accomplished to the maximum extent which may be possible.

Purpose of the Study

To determine the extent to which the present program of studies and other educational experiences meet the needs of international students studying agriculture at Oklahoma State University. Further, it is proposed to explore ways to improve the international dimension in this area of study.

Objectives of the Study

1. Survey the extent of career objectives held by international students studying agriculture at Oklahoma State University.
2. Determine the extent of instructor awareness of the career objectives of students.
3. Determine student and instructor perceptions as to how effective selected formal credit-oriented experiences in classroom instruction may be in assisting attainment of career objectives.
4. Determine student and instructor perceptions as to how effective formal credit-oriented learning experiences in laboratory and field

may be in assisting attainment of career objectives.

5. Determine student and instructor perceptions as to how effective selected extra-curricular credit-oriented experiences may be in assisting the attainment of career objectives.
6. Determine student and instructor perceptions as to how effective instruction in the area of research design and application may be in assisting the attainment of career objectives.
7. Determine student and instructor perceptions as to how effective learning experiences received in the area of rural and/or community development may be in assisting in the attainment of career objectives.
8. Determine student and instructor perceptions as to how effective learning experiences received in the area of communications and/or adult education may be in assisting in the attainment of career objectives.
9. Determine student and instructor perceptions as to the extent to which learning experiences provided include provisions for consideration of conditions and situations may be unique to developing countries.
10. Determine student and instructor judgements as to (1) extent of instructor acquaintance with students, (2) appropriateness of the present TOEFL score required, (3) time of instructor requested by students, and (4) desirability of each student furnishing each instructor a brief statement of his or her career objectives.

Definitions

For purposes of this study certain relevant terms are defined as follows.

1. Student: The term student was used with reference to any individual, not a citizen of the United States, who was enrolled in a study program, either graduate or undergraduate in agriculture, and during the period May 1983 through July 1984.
2. Instructor: The term instructor was used with reference to individual faculty members in the College of Agriculture who were teaching either undergraduate or graduate courses during the Spring Semester 1983.
3. Career Objectives: The term career objectives is used with reference to those careers which have been more or less firmly established by the student as those which are his or her choice in term of employment and service after graduation.
4. Judgements: As used in this study, implies that perceptions, first made, are further solidified as they are considered within the framework of the investigation and thus perceptions develop into judgements.
5. TOEFL - Test of English for Foreign Languages: This test is administered to individuals for which English is their second language. The score on this test is used to evaluate the student's ability to speak and write in English. A score of 500 is required of undergraduate students and 550 for graduate students at OSU.
6. Instructor Experience Outside United States: Responses to this item were expected to include both long-term and short-term assignments as well as military service. Judgements as to the "if applicable" portion of the question was left up to the responding instructor.

Assumptions

A basic assumption is that statements of the questionnaire are such that responses from both students and instructors adequately measure perceptions which, in turn, strongly imply the extent of effectiveness of the agricultural program in preparing international students to serve effectively upon completion of their degree program at Oklahoma State University. Also assumed is the expectation that graduating seniors and graduate students who are in the process of completing programs willingly and accurately furnished the information needed. It is further assumed that the faculty responded willingly and accurately to items on the questionnaire.

Limitations

1. Only undergraduate students scheduled for graduation in 1983 and 1984 were included in the study. In addition, graduate students enrolled during the same two years were included in the study.
2. No attempt was made to secure responses from students who have graduated prior to 1983.

CHAPTER II

REVIEW OF LITERATURE

The philosophy of the government of the United States has been that it has an obligation to help in the development of the underdeveloped nations. This, of course, has been the primary purpose of USAID. Education institutions and particularly the Land-Grant institutions have played a key role in the education of students from underdeveloped nations as well as to assist these nations in the development of their resources, particularly agricultural resources (2).

Why Foreign Students Come to the U.S. for Education

The reason why so many students from developing countries have come to the United States for an education that is really geared to the needs of the economic dynamism of this country may be found in the style of economic and social development that has emerged in the non-socialist world in the years following World War II. This development style is based on the assumption that domestic forces in non-industrial countries will never be able to bring about growth and diversity, aspects which result from an artful combination of capital, technology, organization, and labor . . . namely the contemporary large corporation. Since there is no way to educate people in the home country in the many disciplines required for the management of the translational development plan, governments of developing countries have to look broad for opportunities

for study. The obvious developed country able to offer educational facilities at the graduate level is the United States. Graduate education at the U.S. institutions has been historically relevant for students from developing countries, the reason being that these countries embarked on the style of development that made such education essential. The relevance will continue as long as these countries frame their development efforts in the translational style (8).

The world's food problem is of concern to all the Americans, and that is of special concern to the U.S. universities which have the resources to guide the world into a better situation (23).

"Smaller nations cannot be expected to have the full range of scientific and other professional services required in all of the fields of activity important to their development. They must in most cases, rely on external scientific and other resources for expertise, particularly in view of the low incomes associated with their small size. Basically, they depend on the developed nations for their people to get a university education." (6)

In view of the need for agricultural development and the essential role of the education process in obtaining this development, Sanders (1963) believed that participation of the developed nations especially through their universities is a must (23).

At the 68th Annual Meeting of the American Society of Animal Science in 1976 at College Station, Texas (ASAS, 1977), various authors presented their experiences and opinions (3) Fick (1977) from the university of Florida presented a paper on the role of the graduate student, Caballero, (1977) from organization of American States stressed the need for U.S. universities to be conscious of the fact that the student from a developing country is different in his idiosyncrasies, background and training objectives must be reiterated. Furthermore, he stated that there are some appropriate measures and/or recommendations which will favor the

attainment of a graduate student equipped to appropriately perform in teaching, research, extension and/or agriculture development once he is back in his native country (10).

The main goal of foreign students pursuing graduate work in U.S. universities is to obtain an advanced degree. The basic requirements needed for a M.S. or Ph.D. degree includes satisfactory completion of formal course work, a research program and possibly some practical training. Within these specific requirements, the foreign graduate student may have specific needs, and it is his responsibility to fulfill these needs while he meets the necessary requirements for the degree (10).

Selection of the University

The single most important aspect for effective advanced training may be the selection of the appropriate university. The selection process should be initiated well in advance of intended enrollment in order to leave enough time for gathering information from several universities and academic advisers as well as to fulfill the necessary requirements for admission. Former foreign student graduates from the universities of choice may provide important advice for a satisfactory selection. Universities involved in international projects, with faculty members who have international experience in geographical region of the student's interest, and have a strong program in the student's field of interest should be given priority (10).

To enhance the educational experience of the foreign student during the entire period of study in the U.S. faculty members who have experience in developing countries, in the overseas outreach of the university relationships in foreign students and alumni and in the variety of per-

sonal and professional contacts in the local community should be mobilized. U.S. institutions should select interdisciplinary studies, special courses and skilled training in additional programs designed specifically to take into account the varying needs in different disciplines and the available resources in different countries. Courses which have an international content that serves both the needs of the foreign student and those of the American students seeking a globally-oriented education should be implemented and research projects and theses related to the home country should be approved (14).

Because of the complex problems involved in meeting the needs of students from developing countries and because of the wide variety of educational resources available in the U.S., the institutions must clearly define the nature of its educational programs. Prior to making application to the university, this information must be carefully evaluated by the foreign student and the sponsoring agency to ensure that the needs and goals of the student and the courses available at the institution match. The foreign student must be encouraged to take some initiative and to play an active role in determining the direction of his or her course of study in the United States, and subsequently in the use of the acquired knowledge upon return home (23).

Admission of Foreign Students to the U.S. Institutions

With respect to admissions, the basic task is to admit those students whose objectives can be best served by the resources of a particular university. In some cases, this may mean admitting an applicant from a developing country whose background may not be equal to that of the candidate from an educationally more advanced nation. Prior compe-

tence in English should not be a decisive criterion for admission, but sufficient training in English should be made available to those who need it. Foreign students need help in mastering the operations of the American campus and they should be exposed to American life in its broadest aspects. Academic advising should take place throughout the student's educational career, and academic advisers should work closely with the foreign student adviser. In addition, personal counseling of foreign students is an important component of the university's responsibility. It is proposed that adequate programs of services to foreign students require more institutional budgetary support than is now being assigned for this purpose (26).

Academic Adviser

In regard to advising foreign students, it is suggested that the faculty adviser who does not have a genuine interest in advising foreign students should not be expected to do so. Department heads should consider this very carefully. The average foreign student needs a greater portion of the adviser's time than the U.S. student. For this reason, the adviser's student load should be reduced to reflect the demand for the extra time. This is particularly true in the student's first year of residence (13). It is also believed that the adequacy of a study program is strongly influenced by the role of the academic and research adviser in preparing a relevant program. The graduate student should seek the most suitable adviser for his objectives. Advisers who have served overseas may have a better understanding of the problems which the foreign student will face upon returning to his country (10).

Formal Course Work

While many foreign students may come to the U.S. seeking quick solutions to immediate problems, the essential requirement they need to learn is the way in which problems are solved. While problem-solving is an element in many graduate courses, the foreign student must take further care to see that the development of the capacity to solve problems be isolated from the influence of U.S. culture and conditions. Only in this way can the foreign student return prepared and equipped to meet the needs of the home country. Furthermore, transferability of problem-solving requires not only the knowledge of what makes things happen, but the capability to implement that knowledge effectively. Therefore, irrespective of the student's field of study or professional training, there is for the foreign student from the developing country an almost universal need for additional management training. Even with the most comprehensive preparation, the student returning to make changes in the home country faces a formidable task in which he or she will need all the help possible. The final ingredient in the process of transferability may be provided by mobilizing the support of those alumni in the home country who have been trained in the United States and are thus able to give sympathetic assistance. If some graduate programs can be tailored to meet appropriate technology (that which is relevant to the needs of a community considering the economy, the resources and the value judgements of that community) without compromising academic standards, they thus provide a useful preparation for the student who will be returning to a developing country. To this end there must be an understanding of the origins and objectives of the student's goals which will reflect the natural resources and development plans of the home country. In some countries, this may focus

on exports, in others on increasing employment in agriculture and industry, while others may gear their plans to respond to the current lack of transportation, capital and skilled manpower (7). The foreign student like the American student needs a technological base that is reasonably adequate for three to five years after completion of the college degree. Also, the foreign student needs a scientific base that is strong enough to permit him to continue to reinforce, refresh and update his technological base through self-study and association with scientific colleagues. He must be able to read scientific literature and appropriate new scientific information for his own technical area. If his scientific base is not strong enough to permit him to continue this updating, he will soon exhaust the technological base which he acquired in graduate school, and then he will be little better than his colleagues who did not have the advantage of additional training abroad (14).

The portion of the degree requirements devoted to formal course work will vary depending upon the major field of study, the student and the institution. Graduate students and major professors should work together in planning the best possible course program. If students have background deficiencies, they should request additional time to first complete preparatory course work rather than accept a light and inadequate program. The graduate student should express his needs of theoretical and fundamental training in the course program, based on the degree of sophistication of the scientific environment in his own country to which, presumably, he will return. Among today's students there seems to be a growing sense of need for truly interdisciplinary approaches to problems. There is a strong interest in broader training which will prepare individuals for dealing with complex problems. In some cases the

student may want to select a program which maximizes freedom of course selection in several fields. Such programs provide some depth of training in at least two major fields. In still others, students go through a clear specialization program at the masters level, shifting to new but related areas for their doctoral work (10).

The general orientation of the foreign student's training should be directed, as far as possible, toward supplying the student with the necessary elements for his being able to analyze and understand agricultural production in its real dimension, within the agriculture context, considering technical, economic, social and administrative factors, at both the farm and national level. Training based on the systems approach would greatly enhance this ability. This approach is not easy, for it involves, besides an adequate basic background, a "new way of thinking" about problems, an open mind and a qualified faculty convinced of this philosophy (5).

Research Program

In recent years, there has been a tendency for graduate schools of American universities to arrange for some of their foreign agricultural students working towards their Ph.D. to do most of their theses work at home. This has worked out very well in most instances. It has the distinct advantage of interpreting course work in a foreign country (the U.S.A.) with the research work done in the student's own country. Obviously it is more expensive than it would be if the student completed his Ph.D. requirements during his stay abroad, for most universities require that the graduate student return to the degree-granting university to have his oral examinations and to put the final touches on his doctoral dissertation (9).

Foreign students should take every opportunity to pursue a graduate curriculum with a thesis problem. The selection of the research problem should be made by the professor and the student to match the student's goals and assure that the training provided is realistic in terms of the student's career opportunities. The program should focus on practical or mission-oriented problems. Most of the developing countries cannot afford to direct their scientific resources to pure research. Therefore, their scientific leadership needs to have a strong commitment to research and development based on the needs of the country and to transmission of this information to producers and other appropriate persons (10).

The foreign student will generally have poorer resources for renewal and updating of his scientific and technological knowledge when he returns home and will depend heavily upon continuing contacts with scientists in other countries. Therefore, he should place emphasis on establishing strong personal channels of communication with scientists in developed countries so that he can exchange ideas and information through continuing contacts. The activities of the foreign student should include personal contacts at scientific meetings and visits to other universities and laboratories.

Regardless of the depth of training received, the graduate student should be convinced not only that his field of specialization is a worthy profession, but also that solution of practical problems at home should be as gratifying as becoming an isolated fundamental scientist (10).

Future Direction of Foreign Students in the U.S.

In the coming decades, two countries serve as examples which may illustrate the factors which could affect the flow of students to the

United States: Iran and the People's Republic of China (PRC). Iran currently boasts the largest national group of international students in the United States. However, in the future, the new government of Iran will need to show its supporters inside Iran that their students will not be converted into Americans during their education and that their program of studies will consider the peculiar conditions of Iran. If the government cannot establish these guarantees, the sending of Iranians to the U.S. for graduate study at the current level is not likely to continue (19).

Although it is difficult to predict the political course of events in the People's Republic of China at this time, an ambitious program of modernization is being launched particularly in the areas of science and technology. However, the present leadership will have to convince their internal critics that a U.S. educational experience will not decrease the revolutionary fervor of the students and that the students will acquire knowledge and expertise appropriate to Chinese conditions (26).

For a number of reasons, including financial, political, and intellectual, the U.S. institutions cannot afford to ignore foreign students from developing countries. By receiving these students in their graduate schools, U.S. institutions can also keep track of the successes and failures of programs in developing nations (26).

In previous decades, U.S. graduate educators did not have to worry about the appropriateness of their program for foreign students from developing countries, because their sponsors had an unshaken faith in the transnational style of development and wanted them to get exactly what was offered to U.S. students for they did not think of sending students to the United States. In the 1980's, the sponsors will scrutinize the offerings for relevance because of a much more sophisticated under-

standing of the difference of development and a much more complex and ambiguous political situation both internally and externally. Therefore, if the institutions of graduate education in the U.S. want to maintain or increase the flow of foreign students from developing countries, they will have to revise their offerings to make them suitable to the needs of different developing countries (13).

Problems Faced by the Foreign Students in the U.S.

The provision of a relevant education for foreign students from developing nations is encumbered by a number of problems, most of which are more or less directly related to budgetary limitations. In general, the decreasing financial resources of educational institutions, the priorities will be for those programs and activities that benefit the primary constituency of the university, the U.S. students. In these circumstances, few funds would be allocated to meet the extra expenses which are involved in tailoring special needs. Individual funding also tends to be available only for research that is related to U.S. needs, thus the graduate foreign student seeking such support is tempted to become involved in research projects which have no relationship to conditions in the homeland (15). Housing is one other problem to be considered. In some institutions, dormitories are scarce and are also closed during breaks and vacations when foreign students remain on campus. The pleasant experience of a roommate with a different culture can be turned into a negative one when it is involuntary. In general, libraries lack the few existing, but valuable journals, or periodicals originating in the tropical underdeveloped countries (20).

In the evaluation process there are many sources to use when ap-

praising the effectiveness of an educational program. The former student is one of the most useful resources for information in evaluation, as Bender (1977) points out.

"Former graduates having the experience of testing themselves in post-college responsibilities, are in an excellent position to appraise critically certain segments of the teacher education program. Perhaps no other group can provide a more valid appraisal to serve as a basis for improving the program. Former students know better than anyone else how well prepared they were to make an acceptable beginning as well as advance in a profession. They are the logical source of information for determining the strength and weakness of the program (4)."

The importance and validity of this statement by Bender (4) is also shared by other authors. One of them, Walker (29), also reported the former students at three, five and ten-year intervals, continually remain open for suggestions from students of ways to improve the program then with the aid of the advisory committee, incorporate suggested improvement into the program.

A study of the curriculum for international students in the agricultural education department at Oklahoma State University, with suggestions for future improvement, was conducted by Gill (11) in 1962. The purpose of the study was to determine the needs of the international students who attended OSU to obtain the degrees or to do further studies in Agricultural Education. Students were asked to respond to such questions as: (1) What is their opinion concerning possible relationships between training received for the career and courses taken, and (5) What were the most useful subjects and experiences provided, and which met needs for maximum benefit when the student returns home. According to his findings and conclusions, students have to put more emphasis on the addition of a few new subjects like Audiovisual Aids, Human Psychology and Plant Pathology. Stress was also made for longer stays on tours

and field trips. Although 44 percent of the former students were working as vocational agriculture teachers and 25 percent as a supervisor or administrator and were satisfied with their jobs, still they needed more training on administrative subjects. Ninety percent of the former students have laid more stress on the technical subjects like soil technology, field crops, farm management, poultry production, etc. and 70 percent needed more knowledge on human psychology (11).

Another example in the use of former students' opinions to evaluate an educational program is the study of Updyke in 1965 (18). "New Teachers Perception of the Pre-Service Agricultural Education Program at Oklahoma State University," in which he reported that 82.8 percent felt that professional courses of the Agricultural Education curriculum contributed very highly toward their success. It was also indicated that 71 percent of the respondents felt that technical courses contributed to their occupational success (18).

Angasith (1976) conducted an evaluation of the Agricultural Education Program at OSU by former international students. The purpose of the study was to determine the relative effectiveness of selected aspects of the graduate program in Agricultural Education at Oklahoma State University in terms of knowledge gained and learning experiences received by international students completing a program of advanced studies using as a basis student perception of program effectiveness, particularly as directed toward their recognition of assistance provided for further development of their professional careers. As a whole, the former students indicated that the program had accomplished an outstanding job in serving international students. They felt that the program was well-structured and had the flexibility needed to serve both American and international students.

Respondents did, however, point out some items which they felt could well be improved. Among these were keeping students well-informed concerning academic rules and regulations, relevance of courses in meeting specific needs of international students (1).

A survey study was done by Juan Guevara, a former graduate student at Oklahoma State University's Animal Science department on the adequacy of Animal Science Education in the United States in meeting the needs of Animal Agriculture in Venezuela. One of the questions asked in the study was about the persons who had been influential in choice of Animal Science as a career with the choice examples being, "father or guardian," "college school counselor," "friend who had studied it," "own experience," and "family business." Responses indicated the greatest influence was "own experience," "family business" was the next most influential factor, and third in importance was the "college or school counselor." "Father or guardian" ranked fourth, and last was "friend who had studied it." According to the findings of Guevara (12), excellence of U.S. Animal Science education was considered the most influential factor on the choice of former Venezuelan students to study in the United States. Also political problems in local universities and government support were also important factors in influencing the Venezuelan students to study abroad. Willingness of academic advisers to assist international students was rated high. And it was perceived that the advisers in the animal science department in the U.S. universities were effective in their encouragement to each international student to study and complete assignments. The study further showed that the former Venezuelan students recognized the excellence of the library services in the U.S. universities where they studied. Also the Venezuelan students felt that the availability of reference

materials, textbooks, instructional aids and laboratories were adequate in terms of their needs. Also in Guevara's studies, an appreciable number of former Venezuelan students believed that the instructors of the animal science departments did not make an effort to become acquainted with international students and to understand their educational needs. One-fourth of the Venezuelan students did not consider that they had enough practical experience during their studies in the United States.

Even though, in general advisers were considered to have done a good job, it was felt that they often failed to make efforts to become acquainted with the educational needs of international students. Also, overall, the non-academic activities provided by the U.S. universities were adequate and relevant to the particular needs of international students. However, it was believed that the relationship between American and international students, and assistance in understanding the American culture should be improved.

It was recommended that advisers and instructors should be encouraged to make more effort to become acquainted with the educational needs of international students. Also that animal science departments should give serious consideration to expansion of the program to include some courses in international and worldwide aspects of animal production for the benefit of not only the international, but especially the American students (12).

Summary of the Review of Literature

In overall review of literature as related to relevance of U.S. education for students from developing countries, there must be some identification of goals of the student: increased knowledge in his academic

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Summary of the Review of Literature

In overall review of literature as related to relevance of U.S. education for students from developing countries, there must be some identification of goals of the student: increased knowledge in his academic

field of interest, knowledge that will be applicable in the home country, marketability and intercultural exposure. In his career, a student will need a greater degree of breadth and inventiveness than his American counterpart. With limited scientific manpower and a huge variety of problems to be attacked, a developing country can less afford exclusively specialized scientists.

No curriculum of instruction in any university can teach a student all he will need in later life. The development of knowledge and understanding of principles and developing attitudes and habits of self-education should be the goals of any graduate program (11, 17).

CHAPTER III

DESIGN AND METHODOLOGY

The purpose of this chapter is to present methods used and procedures followed in conducting this study which sought to emphasize development and use of career objectives by international students studying agriculture at Oklahoma State University, as well as determining how to best promote enhancement of faculty awareness and use of these objectives. Major dependence was given to determining both student and instructor perceptions as to the extent to which selected items delineating facets of curriculum are effective in assisting students to prepare for and meet career objectives.

Population

The student segment of the population was made up of both graduates and undergraduates. Only undergraduates scheduled for graduation in 1983 and/or 1984 were included. All graduate students pursuing studies in agriculture were included.

The instructor segment of the population consisted of all instructors in each department who were currently teaching courses, undergraduate and/or graduate.

Development of the Instrument

Use of a questionnaire was felt to be the most feasible means of collecting data for the study. This was based upon recognition that a ques-

tionnaire can be used as a means of eliciting the feelings, beliefs, experiences, or attitudes of individuals. It is most frequently a very concise, preplanned set of questions designed to yield specific information to meet a particular need for research information about a pertinent topic.

The following characteristics were used in developing this questionnaire.

1. It was to deal with a significant topic, a topic the respondents would recognize as important enough to warrant spending his or her time in completing.
2. It would only seek that information which could not be obtained from other sources.
3. It was to be as short as possible, only long enough to get the essential data.
4. It was attractive in appearance, neatly arranged, and clearly duplicated or printed.
5. The questions were objective, with no leading suggestions as to the response desired (11).

The questionnaire was reviewed by members of the researcher's advisory committee and other interested faculty members. It was then revised according to their suggestions. The revised questionnaire was then given to several students and a few instructors to insure that the questionnaire was clearly understood and covered the needed information. Further, the questionnaire was presented in a research and design class for criticism. Recommendations from members of the class and from committee members were incorporated into the final draft of the questionnaire.

The first part of the instructor's questionnaire asked for background information which included: the department of instruction, years on facul-

ty, present major assignment, experiences outside the United States, percent of international students generally enrolled in class and some space for comments or suggestions. The first part of the student questionnaire covered background information as to the name (optional), country of origin, occupation of parent, experience in agriculture (farm reared, extension worker, primary school teacher, secondary school teacher, university), classification of student, major field of study, educational attainment and place secured, career objectives, point in time the present career choice was made. Some space for comments was left at the bottom of the page.

The second part of the questionnaire for both instructors and students consisted of twelve statements largely dealing with selected items relevant to curriculum and learning experiences. The twelve statements were identical for both students and instructors.

Administration of Questionnaire Schedule

Schedules for both instructors and students were taken to the Department Head in each respective department. From a list of international students enrolled in each department, questionnaires were mailed directly to each student with the request that the student return the completed schedule to the department. In a like manner, each instructor who was currently teaching was provided the schedule form and asked to leave the completed form with the departmental secretary. The researcher obtained the completed questionnaires from each departmental secretary.

Analysis of the Data

The following description of the analysis provides an overview as

to treatment of the data collected from the international students studying agriculture at Oklahoma State University and from faculty members in the College of Agriculture. To provide for comparative treatment of the data, numerical values were assigned to the response categories from a value of five for "Strongly Agree" to a value of one for "Strongly Disagree."

For the comparison of perceptions and judgements made between international students and instructors, mean and percentages yielded by response collation was utilized (21, 25).

Mean scores, score categories, and rankings were used to compare and interpret data, both within and between groups. Percentages of each group responding in numerical and categorical units for each statement were determined and used as a major basis for drawing conclusions and making recommendations.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The major objective of this study was to determine the extent to which the present program of studies and other educational experiences meet the needs of international students studying agriculture at Oklahoma State University. Also, it is proposed to explore ways to improve the international dimension in this area of study. A questionnaire was submitted to the international students and the teaching faculty members at Oklahoma State University's Division of Agriculture with the approval of the associate dean of instruction of the Division of Agriculture. Also, permission and recommendations as how to distribute the questionnaires were obtained from each department head of the participating departments. Both the instructors and the students were requested to respond by giving their opinions and judgements as to the effectiveness of the programs at Oklahoma State University in meeting the needs of international students. Furthermore, they were asked to suggest measures that might be undertaken to make the programs function even more to the advantage of the international students.

To facilitate comparison of findings between groups through mean responses and percentage, numerical values were assigned to the response scale as previously discussed in Chapter III.

Also, due to a need to determine the mean response of the groups

and because these mean responses resulted in fractions, a range of numerical values was established for each degree of response category as shown in Figure 1.

<u>Numerical Values</u>	<u>Range</u>	<u>Rating Category</u>
5	4.50-5.00	Strongly Agree
4	3.50-4.49	Agree
3	2.50-3.49	Undecided
2	1.50-2.49	Disagree
1	0.00-1.49	Strongly Disagree

Figure 1. Scales of Values Applied to Response Category

The student segment of the population was made up of both graduates and undergraduates. Only undergraduates scheduled for graduation in 1983 and/or 1984 were included. All graduate students pursuing studies in agriculture were included.

The instructor segment of the population consisted of all instructors in each department who were currently teaching courses, undergraduate and/or graduate.

Findings of the Study

The following section contains data collected relative to the statements in the data collection instrument. To facilitate presentation of these responses, this section will first present some data related to the

general information section of the questionnaires. Also the judgement mean responses of the students versus the instructors will be presented.

Data presented in Table I show the distribution of international students and responses received from major departments. As revealed in Table I, graduate students provided as good a return of the questionnaires as did undergraduate students, 66.70 and 63.60 percent respectively. And was further shown in Table II, instructors were more diligent in returning the questionnaires than were graduate and the undergraduate students combined; 100 percent and 65.3 percent respectively.

Student Responses as to Primary Occupation of Parents

As shown in Table III, three of the seven departments in the Division of Agriculture at OSU had 100 percent of international students indicating that their parent/guardian are farmers. Except for the department of Agricultural Engineering, six of the seven departments in the Division of Agriculture had 16 percent or more farm reared boys or girls graduating from their departments in the 1983-84 graduation dates. And a total of 62 percent of the international students surveyed in the Division of Agriculture were raised in a farming background.

Time of Career Choice

Data presented in Table IV show that a good number of the international students surveyed, 63.06 percent chose to study agriculture at the time when they arrived in the university. Apparently less than three percent made up their minds on the present career choice while they were in primary school. Whereas 19.82 percent decided upon their present career while at the secondary school level. Also, 9.91 percent

TABLE I
DISTRIBUTION OF INTERNATIONAL STUDENTS AND
RESPONSES RECEIVED BY MAJOR DEPARTMENTS

Department	Students					
	<u>Undergraduate</u>			<u>Graduate</u>		
	No.	No. Ret'd	% Ret'd	No.	No. Ret'd	% Ret'd
Ag. Economics	12	6	50.00	15	7	46.67
Ag. Education	4	4	100.00	8	8	100.00
Ag. Engineering	6	4	66.60	10	8	80.00
Animal Science	14	7	50.00	13	6	46.15
Agronomy	8	4	50.00	15	8	53.33
Entomology	4	4	100.00	9	9	100.00
Horticulture	12	8	66.70	7	4	57.14
Plant Pathology	9	7	77.70	6	5	83.33
Forestry	8	5	62.50	10	7	70.00
TOTALS	77	49	(63.64)	93	62	(66.70)

TABLE II
 DISTRIBUTION OF INSTRUCTORS AND RESPONSES
 RECEIVED BY MAJOR DEPARTMENTS

Department	Instructors		
	Number	Number Returned	Percent Returned
Ag. Economics	11	11	100.00
Ag. Education	5	5	100.00
Ag. Engineering	9	9	100.00
Animal Science	15	15	100.00
Agronomy	18	18	100.00
Entomology	3	3	100.00
Horticulture	10	10	100.00
Plant Pathology	5	5	100.00
Forestry	10	10	100.00
TOTALS	85	85	100.00

TABLE III

PERCENTAGE DISTRIBUTION IN TERMS OF PRIMARY
OCCUPATION OF PARENTS OF INTERNATIONAL
STUDENTS IN AGRICULTURE GRADUATING
IN 1983-84 AT OSU

Major Department	No.	Parent/Guardian Occupation												Total	
		Farmer	Religion	Profession- nal in Ag. Other Than Production	Teacher			Politician	Medicine	Lawyer	Civil Service	Business			
					Primary School	Sec- ondary School	College or Univ								
Agronomy	12	100.00												100.00	
Animal Science	13	57.14						14.29					28.57	100.00	
Ag. Engineering	12								25.00		25.00	50.00		100.00	
Ag. Economics	13	50.00						25.00					25.00	100.00	
Ag. Education	12	15.67	16.67			16.67							16.67	33.32	100.00
Entomology	13	50.00						12.50			12.50	12.50	12.50	100.00	
Forestry	12	100.00												100.00	
Horticulture	12	100.00												100.00	
Plant Pathology	12	25.00		25.00								25.00	25.00	100.00	
TOTALS	111	(62.00)	(1.80)	(2.70)		(1.80)	(2.70)	(4.51)	(0.00)	(2.70)	(.90)	(8.11)	(17.12)	100.00	

TABLE IV
 TIME AT WHICH CAREER CHOICE WAS MADE BY
 INTERNATIONAL STUDENT RESPONDENTS

Major Department	No.	Primary School	Secondary School	At The University	On The Job	Other	Total
Agronomy	12			100.00			100.00
Animal Science	13		28.57	42.86		28.57	100.00
Ag. Engineering	12		20.00	40.00	20.00	20.00	100.00
Ag. Economics	13		25.00	75.00			100.00
Ag. Education	12			66.67	33.33		100.00
Entomology	13		33.33	66.67			100.00
Forestry	12		25.00	75.00			100.00
Horticulture	12	20.00	20.00	40.00	20.00		100.00
Plant Pathology	12		33.33	33.33	33.33		100.00
TOTALS	111	(1.80)	(19.82)	(63.06)	(9.91)	(5.41)	100.00

of the students surveyed indicated that they chose the career they presently anticipate while on the job.

Previous Agricultural Experience as an Influence in Career Choice

As shown in Table V of data, a good number of international students studying agriculture at OSU and graduating in the year 1983-84 had previous agricultural experience working at a college or university. Only 4.51 percent indicated that they got their previous agricultural experience through primary school teaching compared to 10.81 percent indicating work in extension as their previous agricultural experience.

Instructor Responses on College Teaching Experience

Data presented in Table VI indicate that more than one-half (54.12%) of the instructors in the Division of Agriculture have had 11 and more years of college teaching experience, and 45.88 percent have less than 11 years of college teaching experience. Also 32.94 percent of the instructors indicated that they have had less than 5 years of college teaching experience.

Instructor Responses on Percentage of Class Enrollment of International Students

Responses given by instructors as to the percentage of their class enrollment made up of international students is given in Table VII. As indicated in Table VII, more than three-fourths of the instructors, 76.47 percent presently have less than 20 percent of their class enrollments comprised of international students. Twenty-five percent of the instruc-

TABLE V
STUDENT RESPONSE BY MAJOR FIELD OF STUDY
AS TO PREVIOUS AGRICULTURAL EXPERIENCE

Major Department	No.	Teacher/Worker			Farm Reared	Extension	None	Total
		Primary School	Secondary School	College or University				
Agronomy	12			30.00	50.00	20.00	100.00	
Animal Science	13		12.50	25.00	50.00	12.50	100.00	
Ag. Engineering	12		25.00	50.00		25.00	100.00	
Ag. Economics	13			33.33	50.00	16.67	100.00	
Ag. Education	12	10.00	20.00	30.00	10.00	30.00	100.00	
Entomology	13			50.00	50.00		100.00	
Forestry	12	33.33			33.33	33.33	100.00	
Horticulture	12			100.00			100.00	
Plant Pathology	12			10.00	30.00	30.00	100.00	
TOTALS	111	(4.51)	(5.41)	(37.84)	(30.63)	(10.81)	(9.01)	100.00

TABLE VI
COLLEGE TEACHING EXPERIENCE AS
REPORTED BY INSTRUCTORS

Department	Years Experience					Total
	None	1-5	6-10	11-15	15+	
Ag. Economics		1	3	4	4	11
Ag. Education		2	1	2		5
Ag. Engineering		3		2	4	9
Animal Science		5	1	2	10	18
Agronomy		5	2	2	6	15
Entomology				1	2	3
Horticulture		6	1	2		9
Plant Pathology		1	1	1	2	5
Forestry		6	2		2	10
TOTALS		28	11	16	30	85

TABLE VII
 INSTRUCTOR RESPONSES AS TO THE PERCENTAGE OF
 CLASS ENROLLMENT BY INTERNATIONAL STUDENTS

Department	Percentage						Total
	10%	11-20%	21-30%	31-40%	41-50%	51-60%	
Ag. Economics	4	4	1	1	2	2	11
Ag. Education	1	3		1			5
Ag. Engineering		5	2		2		9
Animal Science	10	6	1	1			18
Agronomy	2	6	1	3	3		15
Entomology		3					3
Horticulture	7	2					9
Plant Pathology		2			3		5
Forestry	10						10
TOTALS	34	31	4	6	10	2	85

tors have more than 20 percent of their class enrollments comprised of international students.

Instructor Experiences Outside the U.S.

The responses of the instructors on their experiences outside the United States is given in Table VIII. The data in Table VIII indicate that nearly half of the instructors (49.41%) who participated in the study have had no experiences outside United States with only a total of 22.35 percent having had two to ten years experiences outside the United States. A good number of instructors, 27.06 percent, have had a year or less experience outside the United States. And few instructors, 1.20 percent have had eleven to twenty years of experience outside the United States.

Student Responses as to Careers Anticipated

As depicted by responses shown in Table IX, more than 34 percent of student responses indicate that they anticipate career work as administrators in a college or university upon returning home. Only 1.80 percent of the students indicated that they plan to be administrators of vocational agriculture or high school and less than 5 percent intend to work as administrators in the Ministry of Education. While 11.71 percent of the students say that they would like to be administrators in private business or industry, none indicated that they would like to teach or do some research in a similar establishment. More than 18 percent of the respondents indicated that they would seek a teaching or research job in an agricultural college or university as compared to 34 percent anticipating a career as an administrator within the same institution.

TABLE VIII
INSTRUCTOR EXPERIENCES OUTSIDE THE UNITED STATES

Department	Time of Experience in Years						Total
	0	1	2-5	6-10	11-20	21-30	
Ag. Economics	3	3	5				11
Ag. Education	2	2	1				5
Ag. Engineering	6	2	1				9
Animal Science	8	9	1				18
Agronomy	7	1	4	2	1		15
Entomology		2	1				3
Forestry	7		3				10
Horticulture	7	3					10
Plant Pathology	2	2	1				5
TOTALS	42	23	16	3	1		85

TABLE IX
STUDENT RESPONSES AS TO CAREERS ANTICIPATED

Career Area	Percent of Total Students Responding*	
	As a Teacher or Researcher	As an Administrator
A. Extension and/or Ministry of Agriculture	9.91	11.71
B. Agricultural Institute or Junior College	17.71	19.82
C. Vocational Agriculture, High School	5.41	1.80
D. Agricultural Experiment Station	12.61	18.92
E. Development Agency/ United Nations or National	5.41	16.22
F. Private Business or Industry	-0-	11.71
G. Ministry of Education	1.80	4.50
H. Agricultural College or University	18.92	34.23
I. Undecided on any of the above	-0-	.90
Others (2 students wrote in farmer)		

* Respondents were invited to check one or more as they desired.

Classroom Instruction and Course Work Effectiveness

Data as presented in Table X report judgements of international students and instructors as to how effective classroom instruction received at Oklahoma State University is in adequately preparing international students for chosen career objectives in agriculture. There were five categories relating to the effectiveness of the programs in the College of Agriculture, undergraduate and graduate studies: "Strongly Agree," with a numerical value of 5; "Agree," having a numerical value of 4; "Undecided," with a numerical value of 3; "Disagree," with a value of 2; and "Strongly Disagree," assigned a numerical value of 1.

Data presented in Table X show that 54.10 percent of students surveyed agreed that classroom instruction is effective in preparing them for careers in agriculture, as compared to less than half of these students, 35.14 percent, who strongly agreed that classroom instruction is effective in meeting their career objectives in agriculture. Therefore, a total of 89.24 percent of students agreed or strongly agreed that classroom instruction in course work as provided in the College of Agriculture at Oklahoma State University is adequately preparing them for their pursuing their chosen careers in agriculture.

This statement was ranked second of the twelve statements on the questionnaire. However, as shown in Table X as to the instructors' responses to the same statement, only 4.71 percent indicated strong agreement and 71.76 percent showed agreement on the above statement. Like the students, more than three-fourths of the instructors, 76.48 percent, either strongly agreed or agreed that classroom instruction in course work is quite effective in preparing international students to achieve

TABLE X
 COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
 EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
 COURSEWORK IN PREPARING INTERNATIONAL
 STUDENTS TO ACHIEVE CAREER
 OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
1. In general, classroom instruction in course work is effective in preparing International students to achieve career objectives in Agriculture.	Instructors (n=85)	4	4.71	61	71.77	10	11.77	8	9.41	1	1.18	319	3.75
	Students (n=111)	37	35.14	60	54.10	3	2.70	5	4.50	1	0.90	455	4.10

career objectives in agriculture. This statement ranked third overall on the instructor judgements and second by the students. Indicating that both groups agree in their judgements that classroom instruction in course work is effective in preparing international students to achieve career objectives in agriculture. Less than three percent (2.7%) of the students and about twelve percent (11.77%) of the instructors responded as undecided on this statement. A total of 5.4 percent of the students and 10.59 percent of the instructors either disagreed or strongly disagreed that classroom instruction in course work at Oklahoma State University is quite effective in meeting the needs of international students.

Judgements and Perceptions Regarding Effectiveness of Laboratory and Field Instruction

The responses on Table XI show that 40.54 percent of the international students surveyed agreed that laboratory and field instruction are helpful in their preparation for career objectives in agriculture, whereas 49.55 percent strongly agreed on the same statement. A large number of the students, 90.09 percent, either agreed or strongly agreed that laboratory and field instruction is effective in preparing international students to achieve career objectives in agriculture. Only 5.41 percent of the students were undecided on their judgements while less than five percent (4.5%) either disagreed or strongly disagreed that laboratory and field instruction is effective in preparing international students to achieve career objectives in agriculture. Likewise, as shown in Table XI, a total of less than five percent (4.71%) of the instructors either disagreed or strongly disagreed that laboratory and field instruction is quite effective in preparing international students

TABLE XI

COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
COURSEWORK IN PREPARING INTERNATIONAL
STUDENTS TO ACHIEVE CAREER
OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
2. In general, laboratory and field instruction is quite effective in preparing International students to achieve career objectives in Agriculture.	Instructors (n=85)	23	27.06	47	55.29	10	11.77	4	4.71	0	0	341	4.01
	Students (n=111)	45	40.54	55	49.55	6	5.41	4	4.60	1	0.90	472	4.25

to achieve career objectives in agriculture. However, more than twice the instructors, 11.77 percent, compared to the students, 5.41 percent, were undecided on their judgements on this matter. And like the students, most of the instructors, totaling 82.34 percent either strongly agreed or agreed that laboratory and field instruction is quite effective in preparing international students for career objectives in agriculture. Only 27.4 percent of the students and more than half the instructors, 55.29 percent, strongly agreed or agreed respectively in support of the above statement. The students and the instructors mutually ranked this statement as being number 1 in effectively preparing international students to achieve career objectives in agriculture.

Judgements and Perceptions Regarding the Effectiveness of Extra-curricular Activities
(Organizations, Clubs, Tours, Etc.)

As shown by data presented in Table XII, only 7.21 percent of the students and 5.88 percent of the instructors strongly agreed that extra-curricular activities as experienced by international students are quite effective in preparing them to achieve career objectives in agriculture. Whereas, among students, 67.57 percent agreed that extra-curricular activities are quite effective in preparing international students to achieve career objectives in agriculture. As compared with students (10.81%), a third of the instructors (32.94%) were undecided on their judgements on this statement. A total of less than 30 percent of both groups, 25.22 percent and 28.24 percent of students and instructors respectively, disagreed or strongly disagreed that extra-curricular activities are quite effective in preparing international students to achieve career objectives

TABLE XII

COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
COURSEWORK IN PREPARING INTERNATIONAL
STUDENTS TO ACHIEVE CAREER
OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
3. As provided at OSU, extra-curricular activities, (organizations, clubs, tours, etc.) are quite effective in preparing International students to achieve career objectives in Agriculture.	Instructors (n=85)	5	5.88	27	31.77	28	32.94	20	23.53	4	4.71	261	3.07
	Students (n=111)	8	7.21	75	67.57	12	10.81	17	14.41	3	2.70	413	3.72

in agriculture. As shown in Table XXII, this statement received an average rating score of 3.10 from the instructors placing it on the "undecided" rating category and a ranking of ninth position, whereas, the students gave it an average rating score of 3.72, placing it on the "agree" rating category and is ranked fifth overall.

Judgements and Perceptions Regarding Effectiveness
of Instruction in Understanding of Research
Design and Application

The responses on Table XIII indicate that a total of 88.29 percent of the students either strongly agreed or agreed that instruction regarding an understanding of research design and application is effective in preparing them to meet their career goals in agriculture, while 65.88 percent of the instructors (Table XIII) either agreed or strongly agreed that instruction in understanding research design and application is effective. This statement received an average rating score of 3.60 (Table XXII) from the instructors, placing it on the "agree" rating category. Also the statement was ranked seventh by the instructors. The same statement received an average rating score of 4.00 from the students which puts it in the "agree" category and third in the ranking.

Judgements and Perceptions Regarding Effectiveness
of Instruction Providing a Knowledge of Rural
and/or Community Development

As shown in Table XIV, less than half the students surveyed (44.14%) either strongly agreed or agreed that knowledge in rural and/or community development is quite effective in preparing international students to

TABLE XIII

COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
COURSEWORK IN PREPARING INTERNATIONAL
STUDENTS TO ACHIEVE CAREER
OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
4. As provided at OSU, understanding of re- search design and ap- plication is quite effective in prepar- ing International students to achieve career objectives in Agriculture.	Instructors (n=85)	8	9.41	48	56.47	16	18.82	12	14.12	0	0	304	3.58
	Students (n=111)	14	12.61	84	75.68	12	10.81	1	0.70	0	0	444	4.00

TABLE XIV

COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
COURSEWORK IN PREPARING INTERNATIONAL
STUDENTS TO ACHIEVE CAREER
OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
5. As provided at OSU, knowledge in rural and/or community development is quite effective in preparing International students to achieve career objectives in Agriculture.	Instructors (n=85)	5	15.88	20	23.53	36	42.35	20	23.53	3	3.53	256	3.01
	Students (n=111)	13	11.71	36	32.43	54	48.65	6	5.40	2	1.80	385	3.47

achieve career objectives in agriculture as compared to students, the instructors had a much lower support on this statement. Only 29.41 percent of the instructors either strongly agreed or agreed that knowledge in rural and/or community development is quite effective. A large number of the instructors, 42.35 percent compared to 48.65 percent of the students responded as undecided on their judgements on this statement. While a total of only 7.2 percent of the students, much lower than 27.06 percent of the instructors, either disagreed or strongly disagreed that knowledge in rural and/or community development is quite effective in preparing international students to achieve career objectives in agriculture. This statement received an average rating score of 3.10 (Table XXII) putting it on the "undecided" category and ranking last overall. Nearly the opposite was true of the students concerning this statement. It received an average rating score of 3.47 from the students and "agree" on the rating category with a ranking position of seven.

Judgements and Perceptions Regarding the Effectiveness
of Instruction to Provide Knowledge in Communications
and/or Adult Education Procedures

Data shown in XV reveal that 36.04 percent and 34.12 percent of students and instructors, respectively, either strongly agreed or agreed that knowledge in communications and/or adult education is effective in preparing international students at OSU for careers in agriculture. When compared to student responses, likewise a good number of instructors indicated that they were undecided in their judgements of the above statement. More than half the students surveyed, 57.60 percent, and 42.35 percent of the instructors put down undecided as their response to this statement.

TABLE XV

COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
COURSEWORK IN PREPARING INTERNATIONAL
STUDENTS TO ACHIEVE CAREER
OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
6. As provided at OSU, knowledge in communications and/or adult education procedures is quite effective in preparing International students to achieve career objectives in Agriculture.	Instructors (n=85)	8	9.41	21	24.71	36	42.35	18	21.18	1	1.18	269	3.17
	Students (n=111)	10	9.01	30	27.03	63	57.06	8	7.21	0	0	375	3.38

Unlike the students, a total of 22.36 percent of the instructors compared to only 7.21 percent of the students either disagreed or strongly disagreed with the statement (Table XV). Data shown in Table XXII again reveal that the judgements of the instructors on the above statement was rather close to that of the students. The instructors' judgements had an average rating of 3.20, not much different from the 3.38 average rating of students, placing it on the "undecided" rating category by both groups. Like in the second statement, which was ranked first by both groups, the above statement is ranked eighth by both the instructors and the students.

Judgements and Perceptions as to the Extent to
Which Provision is Made for Consideration of
Conditions and Situations which may be
Unique to Developing Countries

As shown in Table XVI, only 3.6 percent of the students and 2.35 percent of the instructors strongly agreed that instruction at OSU does include provisions for consideration of conditions and situations which may be unique to developing countries. A total of 53.15 percent of the students either strongly agreed or agreed to the statement compared to 35.29 percent of the instructors. While 28.83 percent of the students chose undecided as their response to this statement as compared to 36.47 percent of the instructors. A total of 18.01 percent of the students and 27.06 percent of the instructors either disagreed or strongly disagreed that considerations of conditions and situations which may be unique to developing countries is included in instruction at OSU. In either case the statement received a rating category of "undecided" from both groups. The instructors placed an average score of 3.10 to this statement and it

TABLE XVI

COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
COURSEWORK IN PREPARING INTERNATIONAL
STUDENTS TO ACHIEVE CAREER
OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
7. As provided at OSU, instruction does include provisions for consideration of conditions and situations which may be unique to developing countries.	Instructors (n=85)	2	2.35	28	32.94	31	36.47	22	25.88	1	1.18	260	3.06
	Students (n=111)	4	3.60	55	49.55	32	28.83	16	14.41	4	3.60	372	3.35

was ranked tenth, whereas the average student rating score of the same statement was 3.35 and ranking ninth.

Judgements as to Whether the Present TOEFL Score
Requirement for Admission should be Maintained

As indicated by the data on Table XVII, more than half the students and instructors surveyed either strongly agreed or agreed that the present TOEFL score should be maintained. A total of 77.48 percent of the students and 63.53 percent of the instructors either strongly agreed or agreed to the above statement. Less than 20 percent of both the students and the instructors were undecided in their judgements on the above statement. A total of 11.72 percent of the students compared to 20.01 percent of the instructors either disagreed or strongly disagreed that the present TOEFL score required for admission should be maintained. The average rating score on the above statement was 3.69 and 3.70 (Table XXII) by the students and instructors respectively. In both cases, the rating category was "agree" and the statement was ranked fifth by the instructors and sixth by the students.

Judgements as to Whether the Present TOEFL Score
Requirement for Admission Should be Raised

Data on Table XVIII indicate that only a total of 3.6 percent of the students compared to 30.59 percent of the instructors either strongly agreed or agreed that the present TOEFL score required for admission should be maintained. Almost the same number of students, 35.14 percent, compared to 37.65 percent of the instructors were undecided on their judgements on this statement. About twice as many students, 61.26 per-

TABLE XVII

COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
COURSEWORK IN PREPARING INTERNATIONAL
STUDENTS TO ACHIEVE CAREER
OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
8. The present TOEFL score required for admission should be maintained.	Instructors (n=85)	24	28.24	30	35.29	13	15.29	16	18.82	1	1.20	312	3.67
	Students (n=111)	9	8.11	77	69.37	12	10.81	8	7.21	5	4.51	410	3.69

TABLE XVIII

COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
COURSEWORK IN PREPARING INTERNATIONAL
STUDENTS TO ACHIEVE CAREER
OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
9. The present TOEFL score required for admission should be raised.	Instructors (n=85)	8	9.41	18	21.18	32	37.65	24	28.24	2	2.35	257	3.02
	Students (n=111)	1	0.90	2	1.08	39	35.14	57	51.35	11	9.91	255	2.30

cent compared to 31 percent of the instructors, either disagreed or strongly disagreed that the present TOEFL score required for admission should be maintained. Even though both groups ranked the above statement about the same, eleventh by the instructors and twelfth by the students, the average rating scores were different from both groups (Table XXII). The average rating score was 3.10 for the instructors, placing the statement on the "undecided" rating category, whereas the average rating score was 2.30 for the students and is the only statement in the "disagree" rating category.

Judgements as to the Extent to Which Instructors
Have Desirable Acquaintance with International
Students Enrolled in Their Classes

As shown in Table XIX, a total of about the same number of students, 74.78 percent, as that of instructors, 75.30, either strongly agreed or agreed that instructors should make efforts to become better acquainted with international students enrolled in classes. Again, in Table XIX, 24.32 percent of the students compared to 14.12 percent of the instructors were undecided on their judgements on the above statement. A total of less than one percent of the students compared to 9.41 percent of the instructors either disagree or strongly disagree that instructors should make efforts to become better acquainted with international students enrolled in classes. The data on Table XXII indicate an average rating score of 3.90 and 3.93 by the instructors and students respectively with a rating category of "agree" on the above statement by both groups. The above statement was ranked second by the instructors and fourth by the students.

TABLE XIX

COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
COURSEWORK IN PREPARING INTERNATIONAL
STUDENTS TO ACHIEVE CAREER
OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
10. Recognizing time limit constraints which are imposed, instructors should make efforts to become better acquainted with International students enrolled in classes.	Instructors (n=85)	20	23.53	44	51.77	12	14.12	8	9.41	0	0	328	3.86
	Students (n=111)	21	18.92	62	55.86	27	24.32	1	0.90	0	0	436	3.93

Judgements as to the Extent to Which Students Should
Take Care Not to Demand Excessive Amounts
of Time from Instructors

As displayed in Table XX, a total of only 40.54 percent of the students compared to 64.12 percent of the instructors either strongly agreed or agreed that international students should be careful not to demand excessive amounts of time from instructors. A large portion of the students, 45.05 percent, as compared to only 11.79 percent of the instructors, were undecided on the above statement. About the same total number of students, 15.31 percent, compared to 12.94 percent of instructors either disagreed or strongly disagreed that international students should be careful not to demand excessive amounts of time from instructors. The data on Table XXII show instructors with an average rating score of 3.80, putting the statement in the "agree" rating category and ranking fourth, whereas the students average rating score is 3.33 placing it in the "undecided" rating category and ranking tenth.

Judgements as to the Desirability of International
Students Providing Instructors with a Brief
Statement of Their Career Objectives

Data in Table XXI indicate that only a total of 27.93 percent of the students compared to 62.35 percent of the instructors either strongly agreed or agreed that all international students should furnish a brief statement of their career objectives. And almost half the students, 49.55 percent (Table XXI) compared to 22.35 percent of the instructors were undecided on their judgements on the above statement. A total of 22.52

TABLE XX

COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
COURSEWORK IN PREPARING INTERNATIONAL
STUDENTS TO ACHIEVE CAREER
OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
11. International students should be careful not to demand excessive amounts of time from instructors.	Instructors (n=85)	15	17.65	48	56.47	10	11.77	8	9.41	3	3.53	316	3.72
	Students (n=111)	12	10.81	33	29.73	50	45.05	12	10.81	4	4.50	370	3.33

TABLE XXI

COMPARISON OF STUDENT AND INSTRUCTOR JUDGEMENTS AS TO
EFFECTIVENESS OF CLASSROOM INSTRUCTION AND
COURSEWORK IN PREPARING INTERNATIONAL
STUDENTS TO ACHIEVE CAREER
OBJECTIVES IN AGRICULTURE

STATEMENT	RESPONSE GROUP	SA		A		U		D		SD		RATING	\bar{X} RATING
		N	%	N	%	N	%	N	%	N	%		
12. All international students should furnish their instructors at OSU a brief statement of their career objectives.	Instructors (n=85)	14	16.47	39	45.88	19	22.35	11	12.94	1	1.18	306	3.60
	Students (n=111)	2	1.80	29	26.13	55	49.55	25	22.52	0	0	341	3.07

TABLE XXII

COMPARISON OF JUDGEMENTS BY STUDENTS AND INSTRUCTORS
REGARDING THE EFFECTIVENESS OF CURRICULAR AND
NON-CURRICULAR ACTIVITIES AT OSU IN PRE-
PARING INTERNATIONAL STUDENTS FOR
CAREERS IN AGRICULTURE

Statement	INSTRUCTORS			STUDENTS		
	Average Rating Score	Rating Category	Ranking	Average Rating Score	Rating Category	Ranking
1	3.75	Agree	3	4.10	Agree	2
2	4.01	Agree	1	4.25	Agree	1
3	3.07	Undecided	9	3.72	Agree	5
4	3.58	Agree	7	4.00	Agree	3
5	3.01	Undecided	12	3.47	Agree	7
6	3.17	Undecided	8	3.38	Undecided	8
7	3.06	Undecided	10	3.35	Undecided	9
8	3.67	Agree	5	3.69	Agree	6
9	3.02	Undecided	11	2.30	Disagree	12
10	3.86	Agree	2	3.93	Agree	4
11	3.72	Agree	4	3.33	Undecided	10
12	3.60	Agree	6	3.07	Undecided	11

percent of the students compared to 14.12 percent of the instructors either disagreed or strongly disagreed that an international students should furnish their instructors at OSU a brief statement of their career objectives. As shown in Table XXII, the instructors provided an average rating score of 3.60 and "agree" rating category on the above statement and ranking sixth, while the average rating score on the students is 3.07 with a rating category of "undecided" and the statement ranking eleventh.

Summary of Comments Made by the Students

1. Better understanding between the students and the instructors.
2. The students should make as much contact as possible with universities abroad. And especially with those countries or states that have similar geographical conditions favoring the growth and development of the same crops or farm animals.
3. Not to require GRE and TOEFL of international students who have earned a bachelors and/or a masters degree from a U.S. institution.
4. Instruction would include consideration of conditions found in other countries.
5. Inviting visiting professors from developing countries.
6. Arranging field trips whenever possible to enable the international students to get some outside class experiences in related fields.

Summary of Comments Made by the Instructors

1. A better system for helping them with housing, etc. when they first arrive.
2. Students should work closely with their advisors and let them know what might be useful to the students.

3. That the students need to have career objectives so they will know what experiences would be beneficial to them. And also discuss their objectives or plans for the future with their advisor or major professor.
4. Instructors should find out country of origin, and something of the agricultural problem of the area so that relevant examples and/or situations can be employed in teaching.
5. Students should be provided opportunities for contact with agencies, industries, organizations in order to be aware of current policies, practices, objectives and constraints.
6. There should be discussions or presentations by students with emphasis on applying information or knowledge to their own situations. And that the international students should be encouraged to ask questions concerning issues and examples that are relevant to them.
7. International students should be assigned term reports and thesis topics that relate to their career interests and objectives. Also that the instructors should suggest courses that would be useful to them.
8. The students should attend professional meetings in their field of study whenever possible.
9. If possible, international students should have an advisor who has experience in their country and area of the world. He should be able to select a curriculum suitable to each student's needs within limits of requirements.
10. The students should learn to think and find information from whatever sources are available to solve problems as they encounter them in the future.

11. That the instructors encourage after class communication to learn about the students.
12. Students should learn to apply experiences received while in the U.S. to their own situations.
13. Most international students lack in practical experience, they need more "hands-on" experience.

Brief Summary of Data Presented

This study provided information to show that a good number of international students in the Division of Agriculture at OSU were raised in a farming background. It was also interesting to learn that most of the international students in the Division of Agriculture decided to pursue their present agriculture careers at the university, though some of them had made up their minds as early as the primary or secondary school level to pursue a career in agriculture.

Though both the instructors and the students surveyed judged that the present programs at OSU are effective in meeting the needs of international students, there are areas in the program that need some improvements. The recommendations made by both the students and the instructors about the program will be covered in the coming paragraphs.

Despite the fact that many of the instructors in the Division of Agriculture at OSU have had little or no experience outside the United States, their interest and desire to help international students attain their goals was expressed.

Overall, the point that seems to have been of much concern to both the international students and the instructors who participated in this study is the lack of "hands-on" experience. This was mentioned fre-

quently by the respondents in all the nine departments surveyed. Problem solving was one other point emphasized on by the instructors. It should also be brought to attention that many instructors implied that international students should learn to "write clear English." The author was prompted to formulate the following observations.

Based on the responses by both the students and the instructors, we were led to believe that in general, laboratory and field instruction is quite effective in preparing international students to achieve career objectives in agriculture. This statement received the highest rating from both the students and the instructors.

As to the effectiveness of classroom instruction in course work in preparing international students to achieve career objectives in agriculture, both the students and the instructors gave favorable support. And this support was more pronounced even in the judgements of the international students than in those of instructors.

The students strongly felt that extra-curricular activities (organizations, clubs, tours, etc.) are effective in preparing international students to achieve career objectives in agriculture. The instructors were unaware of the usefulness of the extra-curricular activities in preparing international students to achieve career objectives in agriculture. Concerning the statement on understanding of research design and application, the students felt that the university was doing a good job. And the instructors agreed that understanding of research design and application is quite effective in preparing international students to achieve career objectives in agriculture.

The extent to which knowledge in rural and/or community development is effective in preparing international students to achieve career ob-

jectives in agriculture is generally not known by the instructors. Nevertheless, the students judged the instruction to be effective in helping them meet their goals.

With regard to knowledge in communications and/or adult education procedures, both the instructors and the students were uncertain of its effectiveness in preparing international students to achieve career objectives in agriculture. Also both the instructors and the students were uncertain whether instruction at OSU does include provisions for consideration of conditions and situations which may be unique to developing countries.

Both students and instructors unanimously agreed that the present TOEFL score required for admission should be maintained. Neither of the two groups surveyed was in favor of raising the present TOEFL score and this was even more expressed by the students.

As to the statement, "Recognizing time limit constraints which are imposed, instructors should make efforts to become better acquainted with international students enrolled in classes," both groups were in support of the idea. From talking with some of the instructors who participated in the survey, it was learned that a good number of the instructors would rather have the students make an effort to become better acquainted with them.

The instructors generally agreed that the students should be careful not to demand excessive amounts of time from instructors. Though this conclusion was reached using the judgements of instructors on this statement, it is important to point out that some of the instructors conveyed through conversations that they would be very much willing to spend as much time as possible with a student who comes to them.

The instructors also agreed that an international students should furnish them with a brief statement of their career objectives. Discussions on this statement with some instructors revealed that they would encourage the students on whose committees they serve to provide a brief statement of career objectives.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this chapter is to summarize the study with respect to its framework, the design and development, the findings, conclusions and also the recommendations. The conclusions and recommendations presented in this chapter were based solely on the analysis and the summarizations of the data obtained in the investigation. The recommendations and some of the suggestions made as a result of this study were those of the participating students and instructors. It is hoped that the findings from this study will be useful in promoting the effectiveness of curricular and non-curricular activities in meeting the career objectives of international students. Also, it is desired that instructors and interested individuals benefit from this study with the further hope that the international dimension of University function will be strengthened.

General Plan and Purpose of the Study

The primary purpose of this study was to determine the extent to which the present formal program of study and other educational experiences provided, meet the needs of international students studying agriculture at Oklahoma State University. Further, it was the intent to explore possible ways to improve program and services of the University, particularly in the international dimension.

The following objectives were formulated to accomplish the major purpose of the study:

1. Survey the nature and extent of career objectives held by international students studying agriculture at Oklahoma State University.

2. Determine the nature and extent of instructor awareness of the career objectives of students.

3. Determine student perceptions as to how effective selected formal credit oriented experiences may be in assisting attainment of their career objectives.

4. Determine student perceptions as to how effective non-credit selected educational experiences may be in assisting attainment of career objectives.

5. Determine instructor perceptions as to how effective selected formal credit-oriented experiences may be in assisting attainment of career objectives.

6. Determine instructor perceptions as to how effective non-credit selected educational experiences may be in assisting attainment of career objectives.

After reviewing the research and literature related to the problem some of the major tasks involved in designing and conducting the study were (1) selection of the population of study, (2) development of the data collecting instrument, (3) data collection, and (4) the analysis of the findings.

The study population was comprised of both undergraduate and graduate students of the Oklahoma State University's Division of Agriculture. Also the instructors in the Division of Agriculture were included.

Population

The student segment of the population was made up of both graduates and undergraduates. Only undergraduates scheduled for graduation in 1983 and/or 1984 were included. All graduate students pursuing studies in agriculture were included.

The instructor segment of the population consisted of all instructors in each department who were currently teaching courses, undergraduate and/or graduate.

Development of the Instrument

Use of a questionnaire was felt to be the most feasible means of collecting data for this study. This was based upon recognition that a questionnaire can be used as a means of eliciting the feelings, beliefs, experiences, or attitudes of individuals. The questionnaire used in this study was developed after reviewing similar studies done in the past. The questionnaire was submitted to international students and to members of the teaching faculty in the Division of Agriculture at Oklahoma State University. This was done with the approval of the Associate Dean of Instruction in the Division of Agriculture. Also permission, as well as recommendations on how to distribute the questionnaires was obtained from the head of each department.

The questionnaire was reviewed by members of the researcher's advisory committee and other interested faculty members. It was then revised according to their suggestions. The revised questionnaire was then given to several students and a few instructors to insure that the questionnaire was clearly understood and covered the needed information.

The questionnaires were taken to each department who then mailed

them directly to each student with the request that the student return the completed questionnaire to the department. In a like manner each instructor who was currently teaching was provided the questionnaire form and asked to leave completed questionnaire with the departmental secretary. The researcher obtained the completed questionnaires from each departmental secretary.

Major Findings of the Study

1. Among the 84 instructors reporting, 40% reported that within their classes, international students constituted 10% or less of the total enrollment, while an additional 37% indicated that from 11 to 21% of students comprising their classes to be international students. Twelve, or 14%, of instructors reporting indicated a percentage of 41% or more.

2. Less than half (48.81%) of the instructors reported that they had previous learning and/or service experiences outside the United States.

3. Among the 111 international students responding, 34.23% and 18.92% indicated their career choices as an administrator and as a teacher/researcher, respectively in an agricultural college or university.

4. Sixty percent of the students reported the time at which they made their present career choice to be "at the University," with slightly over 20% indicating career choice made while in secondary school.

5. Over one-half of the students reported the major occupations of their parents to be that of farming, while slightly less than 20% indicated parental livelihood to be derived from business.

6. Over three-fourths of instructors and nearly 90% of students indicated agreement that, in general, classroom instruction in course work is effective.

7. Over 83% of instructors either "agreed" or "strongly agreed" that laboratory and field instruction was, in general, effective. Concurrence was registered by over 90% of the students.

8. While slightly over 75% of students were in agreement that extracurricular activities as provided at Oklahoma State University did constitute "effective" preparation, only 38% of instructors so responded. In fact, instructors as a group were "undecided" about this matter.

9. In terms of judging the effectiveness of training provided in the area of research, 67% of instructors felt this to be effective as compared to somewhat over 88% of students.

10. Less than one-half of instructors and less than one-third of students felt that the training provided in knowledge of rural and community development was effective.

11. Only slightly more than one-third of both students and instructors indicated that they felt knowledge in communications and/or adult education procedures provided by the University was effective in assisting students to obtain their objectives.

12. Again, only slightly more than one-third of both instructor and student groups indicated that they felt that instruction, as provided in agriculture at O.S.U. included provisions for adequate consideration of conditions and situations which may be unique to developing countries.

13. With regard to TOEFL score requirements over 64% of instructors and 78% of students felt that the score presently required should be maintained. This finding compares with 31% of instructors and less than 1% of students indicating possible approval of a higher score requirement.

14. Almost equal percentages of both student and instructor groups constituting three-fourths or more felt that, recognizing time limit constraints which are now imposed, instructors should make efforts to become better acquainted with international students enrolled in their classes.

15. While 75% of instructors responded affirmatively to the statement "International students should be careful not to demand excessive amounts of time from instructors", only 41% of the student group agreed.

16. While only 28% of students felt that they should furnish their instructors a brief statement of career objectives, 63% of instructors felt this procedure would be of value.

Conclusions

From (1) responses of instructors and students, (2) review of literature, and (3) the investigator's personal experiences, the following conclusions have been drawn.

1. It is concluded that, in general, both instructors and students are in agreement that in terms of both classroom instruction and laboratory and field experiences, the present program is largely effective.

2. Along with these, both groups agreed that learning experiences directed toward understanding of research design and application is effective in preparing international students to achieve career objectives in agriculture.

3. It can be further concluded that both students and instructors are not at all certain that learning experiences provided in two areas are effective in preparing them to meet career goals when they return for service in their own countries. These two areas are (1) communications and/or adult education, and (2) rural and/or community development. When literature related to third country development is reviewed, a pre-

ponderance of studies seem to stress these two areas of competency are key items. Further, since one of the main objectives of agricultural development is to improve the welfare of the society, the importance of well functioning programs which enable agricultural leaders to be effective teachers and community developers would seem almost mandatory.

4. Likewise, an analysis of findings leads to the conclusion that neither instructors or students are entirely satisfied that instruction as currently provided does include adequate provision for consideration of conditions and situations which may be unique to developing nations.

5. Since a predominant majority of instructors evidently are convinced that international students should exercise more care in demanding an excessive amount of time from the instructor; and this, when compared to the 60% of students who either do not agree or are undecided, an attempt to reconcile some of the different view points is needed.

6. With regard to the matter of international students furnishing instructors a brief statement of career objectives, slightly over 63% of instructors agreed that this practice would be beneficial, while 72% of students either disagreed or were undecided. This finding carries the implication that either students feel this to be a private matter or that they themselves have some insecurity about the outcome of their educational pursuit. Also, many international students feel strongly that the student role should be submissive and the instructor's role directive. Overall, it can be concluded that, in general, both students and instructors have positive attitudes toward the pattern of educational experiences provided agricultural students at Oklahoma State University.

7. Also both the students and instructors agreed that the present TOEFL score required for admission should be maintained. It is further concluded that students are much more apprehensive about raising the

required TOEFL score than are instructors, although neither group approves such action.

Recommendations

Based upon the findings of the study and including the review of literature and the researchers own personal experiences in Kenya the following recommendations are tendered:

1. It is recommended that a workshop be held for instructors in the College of Agriculture in which the needs of international students be further explored and possible beneficial actions be developed. At some period during the workshop international students should be participants.
2. It is further recommended that a seminar be designed for international students. This should meet a minimum of three sessions of two hours in length. Each international student should be required to participate in two seminars.
3. Consideration should be given to either existing courses with such content in each of the two areas of (1) rural and community development and (2) communications and adult education be revised or new courses should be developed to provide for meeting the needs of international students to gain more expertise as a functioning leader in their home countries. The possibility should be explored of establishing a single course covering these two areas in particular, which might be team taught by instructors from various departments.
4. Whenever possible, and for graduate students in particular, at least one member of the student's committee should have had some experience in visiting or serving in the student's home country or in a country in which conditions are similar.

5. A program should be devised to provide appropriate recognition for faculty of the College of Agriculture who can be judged as having rendered exceptional services in advisement and/or teaching of international students.

6. In the advisement of international students the importance of formulating career objectives should be stressed early in the students' initial enrollment. The possible usage of these stated objectives by instructors should be explained both to students and instructors.

7. During the seminar held for international students, attention should be focused upon instructor/student relationships, particularly as those affect time available for individual conferences as well as appropriate services which instructors can provide for students. Differences presently found in teaching methods and patterns between the international student's home country as contrasted to those in use on the OSU campus should be explored.

8. During the workshop for instructors, attention should be given to discovering ways in which participation by international students in extra-curricular activities can be most beneficial. Departmental clubs should be challenged to include internationals in their activities.

Call Numbers	Books/Bound Periodicals	Current Periodicals	Call Numbers	Books/Bound Periodicals	Current Periodicals
000 - 099	3rd fl	2nd fl	600 - 624	Basement	1st fl
100 - 199	3rd fl	2nd fl	625 - 649	1st fl	1st fl
200 - 299	3rd fl	2nd fl	650 - 659	4th fl	2nd fl
300 - 329	3rd fl	2nd fl	660 - 699	1st fl	1st fl
330 - 399	4th fl	2nd fl	700 - 799	4th fl	2nd fl
400 - 499	4th fl	2nd fl	800 - 899	4th fl	2nd fl
500 - 599	Basement	1st fl	900 - 999	4th fl	2nd fl
Theses, Q(uarto) or F(olio) oversize books are on the 3rd floor.			Exceptions are noted in the "location" field in <i>PETE</i> .		

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INSTRUCTOR QUESTIONNAIRE

Years on faculty _____ Department _____

Present Major Assignments: _____ Teaching _____ Research
_____ Extension _____ Administration

Experiences outside the United States, if applicable.

1. _____
2. _____
3. _____
4. _____

(For teaching faculty) How many International students are generally enrolled in your classes. Percent of total class enrollment. Please circle one.

_____ Less than 10%	_____ 31-40%
_____ 10-20%	_____ 41-50%
_____ 21-30%	_____ 51-60%

For what percentage of your International students do you presently endeavor to find out what career objectives they have? _____

Please remark upon any practices which you may feel valuable to helping students to make their studies relevant to their career objectives. _____

STUDENT QUESTIONNAIRE

Name (Optional) _____	Country _____
Occupation of parent _____	<u>CLASSIFICATION</u>
Experiences you have had in Agriculture	Graduate _____
(Check those that apply)	Undergraduate _____
Farm reared _____	<u>MAJOR FIELD OF STUDY</u>
Extension worker _____	_____
Primary School teacher _____	
Secondary School teacher _____	
University _____	
Other (please write) _____	

EDUCATIONAL ATTAINMENT AND PLACE SECURED

	<u>Home Country</u>	<u>United States</u>	<u>Third Country</u>
High School	_____	_____	_____
Undergraduate College	_____	_____	_____
Graduate College	_____	_____	_____

CAREER OBJECTIVES

Career you anticipate upon return to your country. (NOTE; PLEASE CHECK ONE OR MORE AS THEY APPLY IN EITHER OR BOTH COLUMNS)

AS AN ADMINISTRATOR

AS A TEACHER AND/OR RESEARCHER

- | | | |
|-------|--|-------|
| _____ | A. Extension and/or Ministry of Agriculture | _____ |
| _____ | B. Agricultural Institute or Junior College | _____ |
| _____ | C. Vocational Agriculture, High School | _____ |
| _____ | D. Agricultural Experiment Station | _____ |
| _____ | E. Development Agency/United Nations or National | _____ |
| _____ | F. Private Business or Industry | _____ |
| _____ | G. Ministry of Education | _____ |
| _____ | H. Agricultural College or University | _____ |
| _____ | I. Undecided on any of the above | _____ |

Please list others, if needed

Point in time when above career choice was made

If a major change in career objectives was made, when?

- | | | |
|-------|-------------------|-------|
| _____ | Primary School | _____ |
| _____ | Secondary School | _____ |
| _____ | On the job | _____ |
| _____ | At the University | _____ |
| _____ | Other _____ | _____ |
| | (Please list) | |

How could the program at OSU be improved?

APPENDIX C

OPINION SURVEY

NOTE: Please circle the letter that best describes the extent of your agreement with the statement. SA=Strongly Agree; A=Agree; U=Undecided; D=Disagree; SD=Strongly Disagree.

- | | | | | | | |
|-----|--|----|---|---|---|----|
| 1. | In general, classroom instruction in course work is effective in preparing International students to achieve career objectives in Agriculture. | SA | A | U | D | SD |
| 2. | In general, laboratory and field instruction is quite effective in preparing International students to achieve career objectives in Agriculture. | SA | A | U | D | SD |
| 3. | As provided at OSU, extra-curricular activities, (organizations, clubs, tours etc.) are quite effective in preparing International students to achieve career objectives in Agriculture. | SA | A | U | D | SD |
| 4. | As provided at OSU, understanding of research design and application is quite effective in preparing International students to achieve career objectives in Agriculture. | SA | A | U | D | SD |
| 5. | As provided at OSU, knowledge in rural and/or community development is quite effective in preparing International students to achieve career objectives in Agriculture. | SA | A | U | D | SD |
| 6. | As provided at OSU, knowledge in communications and/or adult education procedures is quite effective in preparing International students to achieve career objectives in Agriculture. | SA | A | U | D | SD |
| 7. | As provided at OSU, instruction does include provisions for consideration of conditions and situations which may be unique to developing countries. | SA | A | U | D | SD |
| 8. | The present TOEFL score required for admission should be maintained. | SA | A | U | D | SD |
| 9. | The present TOEFL score required for admission should be raised. | SA | A | U | D | SD |
| 10. | Recognizing time limit constraints which are imposed, instructors should make efforts to become better acquainted with International students enrolled in classes. | SA | A | U | D | SD |
| 11. | International students should be careful not to demand excessive amounts of time from instructors. | SA | A | U | D | SD |
| 12. | All international students should furnish their instructors at OSU a brief statement of their career objectives. | SA | A | U | D | SD |

VITA 2

Richard Kiprono Mibey

Candidate for the Degree of

Doctor of Education

Thesis: CAREER OBJECTIVES OF INTERNATIONAL STUDENTS STUDYING AGRICULTURE, FACULTY AWARENESS OF THESE OBJECTIVES AND JUDGEMENTS OF BOTH GROUPS AS TO EFFECTIVENESS OF LEARNING EXPERIENCES PROVIDED AT OKLAHOMA STATE UNIVERSITY

Major Field: Agricultural Education

Biographical:

Personal Data: Born in Nyambogo, Kenya, December 1951, the son of George and Alice Ngerechi. My father has served as a chief for over twenty years and has a total of twenty-four children from three wives. All the children have High School education with three girls having Junior College education. One younger brother is currently enrolled studying pharmacy at the University of Oklahoma.

Education: Received a Bachelor of Arts degree in Biology from Warren Wilson College, Swannanoa, North Carolina, in August 1976. Received a Master of Science degree in Biology at Appalachian State University, Boone, North Carolina in August 1978. Received a second masters degree in Plant Pathology at Oklahoma State University, Stillwater, Oklahoma in May 1981.

Personal Goals: It has been my desire to help minimize the hunger problem faced by many third world countries, one of them being Kenya. I would like to be in a position to get involved in organizing and developing programs that would improve crop production in rural areas. Obtaining a doctoral degree in Agricultural Education would help attain this goal. The course work offered in this program would enable me to carry on effectively in this profession and be of greater service to my country.